PCSRF Round 7: Fall 2008

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IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Department of Fish and Game

1.2. Contact person (lead person to be contacted regarding project): Justin Bezold

1.2.1. Address: 99 Hwy 93 North, Salmon, ID 83467

1.2.2. Telephone: 208-756-2271

1.2.3. Fax: 208-756-6274

1.2.4. Email: jbezold@idfg.idaho.gov

1.3. Technical contact (person who will be project lead/implementer):Justin Bezold

1.3.1. Address: 99 Hwy 93 North, Salmon, ID 83467

1.3.2. Telephone: 208-756-2271

1.3.3. Fax: 208-756-6274

1.3.4. Email: jbezold@idfg.idaho.gov

2. Project Overview

2.1. Project title: Canyon Creek Reconnect

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☐ Clearwater
☒ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Habitat Protection and Restoration**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):

This project seeks to address degraded adult spawning habitat and juvenile rearing and resting habitat in the Upper Salmon River Basin, specifically, the Lemhi River headwaters. The Lemhi River has been identified as critical habitat for salmon in Idaho; therefore, any project which increases available habitat directly affects salmon recovery in Idaho. We propose to transfer 2-3 cfs of water rights to the Lemhi River from Canyon Creek. By sheparding this water down Canyon Creek, we'll create a baseflow of 2-3 cfs, thereby reconnecting the system. The transferred water rights will then be called for from the Lemhi River and pumped upto the original place of use. This results in no net-change in the entire system. Our proposed actions would increase the available habitat for juvenile anadromous fish rearing, and increase habitat available for resident fish of all life stages.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):

Current habitat conditions in Canyon Creek are sub-optimal for salmonids. The lower two miles of the creek is seasonally dewatered, creating unsuitable habitat. When water is present, diminished flows create a thermally flashy stream, thereby eliminating passage potential of the creek. Substrate and riparian habitat is degraded, but improving due to new agricultural practices and past improved irrigation practices. By restoring flows to lower Canyon Creek, passage from the Lemhi River to Canyon Creek headwaters will be achieved. This will provide thermal refuge during summer months, and hopefully increase fish production in the upper Lemhi system by allowing a greater percentage of fish to reproduce and juveniles to recruit to the population.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):

Increase availability of rearing and resting habitat for all juvenile salmonids, but with special attention to Chinook salmon and Steelhead trout. Additionally, Steelhead trout will have greater access to spawning habitat in Canyon Creek headwaters. The reconnect will also benefit Bull trout, Redband trout, and Westslope Cutthroat trout by providing movement corridors between habitat types.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):

We propose to sample Canyon Creek for fish upon completion of having a wetted channel for an entire irrigation season. IDFG employees will sample the stream as part of standard stream sampling. This will take place during summer months. Only the lower 2.0 miles will be

sampled. Cost will not exceed $500 in employee time.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: 2.00

2.9. Total PCSRF funds requested: $78,390.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $40,000.00

2.11. Anticipated project start date(m/d/yy): 1/1/2009

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 12/31/2011

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:
Engineering survey and plans - summer 2009; all necessary permits and biological assessments - summer 2009; installation of pipes and valves - fall 2009; pump station and screen construction - spring 2010; quarterly reports (April, July, October, January); final report May 2011

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
Landowner support for this project is strong. This project was proposed by the landowner as a water savings measure.

4.2. Assess community support for the project:
Community support for Lemhi tributary restoration is high.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
This project addresses objectives to improve instream habitat in the draft Lemhi Conservation Plan.

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
This project addresses habitat degradation, as defined in the Salmon sub-basin assessment.

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:

This project was reviewed by the Upper Salmon Basin Technical Team, and received a high score. See attached for actual scores.

5. Permits

5.1. List all government permits known to be needed to complete project:

Federal Regulatory Compliance: 1) ESA Section 7 Approval Process (Biological Opinions), 2) ESA Section 10 Approval (Sampling and "Take" Permits), 3) COE & IDWR Section 404 Permit Process, 6) FLMPA Permits for Special Use and Rights of Way, 7) National Historic Preservation Act Section 106 Process. State Compliance: 1) Title 42 Irrigation and Drainage-Water Rights and Reclamation, 2) Title 67 State Government and State Affairs-Chapter 41 State Historical Society. Approved Processes: 1) Approved in-stream work windows for construction projects.

5.2. Landowners granting access for project (please attach access agreements):

The landowner is highly supportive of this project, and has agreed to unrestricted access as necessary.

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary							
Fringe							
Travel	1000						1000
Supplies	500						500
Communications/Utilities							
Training							
Lease/Rental	1000						1000
Land Acquisition							
Capitalized Equipment	34,000						34,000
Equipment O&M	500						500
Subcontracts	10,000	25,000	Idaho Water Resources	15,000	Landowner construction costs	40,000	50,000
Other	20,000						20,000
Indirect	11,390						11,220
TOTAL	78,390	25,000		15,000		40,000	118,390

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SHPR Supplement form* and attach to this form.

7.1. Worksite number 1 of 1

7.2. Worksite name: Beyeler Canyon Creek

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:
Site survey for pump station and pipeline route, design of pump station and intake screens,

7.4. County where worksite is located: Lemhi

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: 44.68764 (Decimal format)
Longitude: 113.36371 (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-
3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 05/01/09

7.8. Anticipated work end date at this worksite (m/d/yy): 04/30/11

7.9. List salmonids historically present at this worksite:
Chinook salmon, Steelhead trout, Bull Trout, Westslope Cutthroat trout, Mountain Whitefish

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- [x] Snake River Spring/Summer-run ESU Chinook Salmon
- [ ] Snake River Fall-run ESU Chinook Salmon
- [x] Snake River Basin ESU Steelhead
- [ ] Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- [x] Biological processes
- [x] Channel conditions
- [ ] Estuarine and near-shore habitat
- [ ] Exotic species
- [ ] Fire regime
- [x] Floodplain conditions
- [ ] Irrigation diversions – screens
- [ ] Lake Habitat
- [x] Loss of access to spawning and rearing habitat
- [ ] Predator/competitor interactions
- [x] Riparian conditions
- [x] Streambed sediment conditions
- [x] Temperature
- [ ] Trophic interactions
- [x] Water quality
- [ ] Water quality (toxics)
- [x] Water quantity

Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable, please answer each highlighted field. If a highlighted field does not apply enter zero or NA.

Screening

- Number of screen(s) installed: 1
- Flow rate of water diverted (cfs): 2.0

- Quantity of water protected by screens (duty):

Instream Habitat
- Number of miles of streambank stabilization treatment (miles to .01 miles): n/a
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles): n/a

Instream Flow
- Amount of water returned to the stream (cfs): 2.0
- Start date of the return flow (m/d/yy): 05/01/10
- End date of the return flow (m/d/yy): n/a
- # of water flow gauges installed: 0
- Volume of water leased or purchased (cfs): n/a

Fish Passage Improvement
- Number of fish passage blockages removed or improved: n/a
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles): n/a
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to .01 miles): n/a

Riparian Habitat
- Length of riparian stream bank treated (miles to .01 miles): n/a
- Amount of riparian area treated except for invasive species treatment (acres): n/a
- Amount of riparian area treated for invasive plant species (acres): n/a

Upland Habitat
- Amount of upland area treated (acres): n/a
- Length of road treated (miles to .01 miles): n/a

Wetland
- Amount of wetland treated (acres): n/a
- Amount of artificial wetland created (acres): n/a
- Amount of wetland area of invasive species proposed for treatment and actually treated (acres): n/a

Land acquisition/easements/leases
- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres): n/a
- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles): n/a

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Department of Fish and Game

1.2. Contact person (lead person to be contacted regarding project): Justin Bezold

1.2.1. Address: 99 Highway 93 North, Salmon, ID 8367

1.2.2. Telephone: 208-756-2271

1.2.3. Fax: 208-756-6274

1.2.4. Email: jbezold@idfg.idaho.gov

1.3. Technical contact (person who will be project lead/implementer):Justin Bezold

1.3.1. Address: 99 Highway 93 North, Salmon, ID 83467

1.3.2. Telephone: 208-756-2271

1.3.3. Fax: 208-756-6274

1.3.4. Email: jbezold@idfg.idaho.gov

2. Project Overview

2.1. Project title: 12-Mile Side Channel

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:

☐ Clearwater
☒ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Habitat Protection and Restoration**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):

The 12-Mile reach of the Salmon River is designated as critical habitat in "high" need of restoration to a more natural condition. Regional fisheries reports and technical documents note the presence of adult and juvenile Chinook salmon and Steelhead, but ultimately conclude that habitat conditions limit the reaches' fish productivity.

The goal of this project is to provide additional rearing and resting habitat for juvenile salmonids in the Salmon River. This project addresses degraded habitat conditions by rehabilitating a disconnected and heavily silted historic side-channel to its natural state (functionally connected to the river). A three-phased approach is being used with this project. Phase one, is for an engineering survey and feasibility study. Phase two is project implementation, and phase three will consist of post-project monitoring and evaluation to document fish response to actions. We are only applying for phase one monies at this time.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):

Proposed actions seek to restore degraded side-channel habitat along the Salmon River in a reach known as "12-Mile". This reach currently possessess mixed habitat for juvenile rearing and resting. Hannah Slough, upstream of the proposed work site, contains ideal juvenile habitat. However, downstream of Hannah Slough, the river has been diked and channelized, and side-channel habitats have been nearly eliminated. There are no other side-channels within 0.5 miles of the proposed work site. Currently, the side-channel is seasonally disconnected and heavily silted as a result. Previous agricultural practices (irrigation and excavation work) have exacerbated the seasonal disconnection and result in unnatural water warming and algal blooms. By reconnecting the side-channel, these conditions will all be reversed and conditions ideally improved.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):

Increased quantity and quality of rearing and resting habitat for juvenile Chinook salmon, Steelhead Trout, Bull trout, and Redband trout. Spawning habitat for Redband trout. Riparian zone recovery, reduced water temperatures via habitat improvements. Reduce sediment in side-channel with flushing flows.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):

Phase One/Two - no monitorring and effectiveness activities, but Phase Three will monitor the effectivenss of the proposed project.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: 0.25

2.9. Total PCSRF funds requested: $29,000.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $9,600.00

2.11. Anticipated project start date(m/d/yy): 1/1/2009

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 12/31/2009

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:
Deliverables and timelines (in parentheses) identified for this project: 1) Contract with stream restoration consulting company (March 2009), 2) Coordination, project site surveys, inspections, etc. (July 2009), 3) Final draft of planning document provided to IDFG (December 2009, 4) Quarterly Reports (April 2009, July 2009, October 2009, January 2010) 5) Final Project Report (February 2009).

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
The landowner is extremely supportive of this project and emphasizes conservation on her property.

4.2. Assess community support for the project:
Community support is high.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
This project addresses habitat and upper Salmon River basin fish production issues identified in the Salmon Sub-basin Management Plan (2004).

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:

This project addresses habitat and upper Salmon River basin fish production issues identified in the Salmon Sub-basin Management Plan (2004), mainly addresses floodplain connectivity and riparian condition.

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:
This project received a high ranking by the Upper Salmon River Technical Team . See attached document for actual scores.

5. Permits

5.1. List all government permits known to be needed to complete project:
Federal Regulatory Compliance: 1) ESA Section 7 Approval Process (Biological Opinions), 2) ESA Section 10 Approval (Sampling and "Take" Permits), 3) COE & IDWR Section 404 Permit Process, 6) FLMPA Permits for Special Use and Rights of Way, 7) National Historic Preservation Act Section 106 Process. State Compliance: 1) Title 42 Irrigation and Drainage-Water Rights and Reclamation, 2) Title 67 State Government and State Affairs-Chapter 41 State Historical Society. Approved Processes: 1) Approved in-stream work windows for construction projects.

5.2. Landowners granting access for project (please attach access agreements):
Claire Casey - no written agreement in place, landowner approved this project.

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary				7,600	BPA Funded IDFG Regional Fish Bio	7,600	7,600
Fringe				2,300	BPA Funded Benefits	2,300	2,300
Travel							
Supplies							
Communications/Utilities							
Training							
Lease/Rental							
Land Acquisition							
Capitalized Equipment							
Equipment O&M							
Subcontracts	16,500						16,500
Other							
Indirect	2,900						2,900
TOTAL	19,400			9,600		9,600	29,000

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SHPR Supplement form* and attach to this form.

7.1. Worksite number 1 of 1

7.2. Worksite name: 12-Mile Side Channel

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:
Engineering and Feasibility Study, Project implementation, Effectiveness and Monitoring study.

7.4. County where worksite is located: Custer

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: 44.61345 (Decimal format)
Longitude: 114.15767 (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-
3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): January 2009

7.8. Anticipated work end date at this worksite (m/d/yy): December 2012

7.9. List salmonids historically present at this worksite:
Chinook Salmon, Steelhead trout, Bull trout, Redband trout, Mountain whitefish, Westslope Cutthroat trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- [x] Snake River Spring/Summer-run ESU Chinook Salmon
- [ ] Snake River Fall-run ESU Chinook Salmon
- [x] Snake River Basin ESU Steelhead
- [ ] Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- [x] Biological processes
- [x] Channel conditions
- [ ] Estuarine and near-shore habitat
- [ ] Exotic species
- [ ] Fire regime
- [x] Floodplain conditions
- [ ] Irrigation diversions – screens
- [ ] Lake Habitat
- [x] Loss of access to spawning and rearing habitat
- [ ] Predator/competitor interactions
- [x] Riparian conditions
- [x] Streambed sediment conditions
- [x] Temperature
- [ ] Trophic interactions
- [x] Water quality
- [ ] Water quality (toxics)
- [ ] Water quantity

Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable, please answer each highlighted field. If a highlighted field does not apply enter zero or NA.

Screening

- Number of screen(s) installed: n/a
- Flow rate of water diverted (cfs): n/a

- Quantity of water protected by screens (duty): n/a

Instream Habitat

- Number of miles of streambank stabilization treatment (miles to .01 miles): n/a
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles): n/a

Instream Flow

- Amount of water returned to the stream (cfs): n/a
- Start date of the return flow (m/d/yy): n/a
- End date of the return flow (m/d/yy): n/a
- # of water flow gauges installed: n/a
- Volume of water leased or purchased (cfs): n/a

Fish Passage Improvement

- Number of fish passage blockages removed or improved: n/a
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles): n/a
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to .01 miles): n/a

Riparian Habitat

- Length of riparian stream bank treated (miles to .01 miles): n/a
- Amount of riparian area treated except for invasive species treatment (acres): n/a
- Amount of riparian area treated for invasive plant species (acres): n/a

Upland Habitat

- Amount of upland area treated (acres): n/a
- Length of road treated (miles to .01 miles): n/a

Wetland

- Amount of wetland treated (acres): n/a
- Amount of artificial wetland created (acres): n/a
- Amount of wetland area of invasive species proposed for treatment and actually treated (acres): n/a

Land acquisition/easements/leases

- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres): n/a
- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles): n/a

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Custer Soil and Water Conservation District

1.2. Contact person (lead person to be contacted regarding project): Karma Bragg

1.2.1. Address: P. O. Box 305, 1258 Pleasant Avenue

1.2.2. Telephone: 208-879-4428

1.2.3. Fax: 208-879-5903

1.2.4. Email: cswcd@custertel.net

1.3. Technical contact (person who will be project lead/implementer):Mark Olson

1.3.1. Address: 945 Riverfront Drive, Salmon, Idaho

1.3.2. Telephone: 208-756-3211 ext. 102

1.3.3. Fax: 208-756-4705

1.3.4. Email: Mark.Olson@id.us.gove

2. Project Overview

2.1. Project title:

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☐ Clearwater
☒ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Habitat Protection and Restoration**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):
The Pahsimeroi and it's tributary Patterson/Big Springs Creek (PBSC) has a unique population of anadromous Snake River Chinook salmon as well as steelhead, rainbown, bull, and cutthroat trout. The Salmon population in Pahsimeroi River is a larger migrating summer-run Chinook salmon rather than a spring run. Approximately 80% of the Pahsimeroi is protected with Riparian Fencing from the mouth to Hooper Lane. Riparian fence from a previous BPA funded project has been installed on the property protecting the river, however, Patterson/Big Springs Creek and numberous spring fed systems that feed PBSC still needs protection as outlined in this proposal. Jack Post and Pole fence will be more desireable than wire fence due to ground heaves, wet area and wildlife movement and safety. Elk and deer frequet the area and tend to get hung up in the wire fences often leading to mortality. In addition the wet ground tends to "heave" the driven posts from the ground.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):
A Jack fence was installed in 1998 to protect and enhance the Pahsimeroi River. However, PBSC and it's many spring fed tributaries, which are critical juvenile slamon and trout spawning and rearing habitat, still need protection. The previous owner of the property had grazed the area extensively which severely degraded riparian vegetation as well as negatively impacted important fish habitat through increased erosion and stream sediment loads. The new owners (Big Springs Creek, LLC) plan to utilize grazing as a tool for riparian health so limited grazing will occur in the bottom ground of the property under an NRCS Grazing plan. This new grazing regime will enhance riparian vegtation while also protecting critical fish habitat from the deleterious effects of overgrazing. The proposed fence will protect the Pahsimeroi, PBSC, and several other spring creek and spring heads on the property.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):
IDFG Anadroumous Fish Screen Program and Regional Fisheries Management have prioritized the lower Pahsimeroi River and it's tributary Patterson/Big Springs Creek as SHIPUSS Priority Stream #1. Those are tributaries and river reaches that have the potential to realize immediate, tangible benefits to fish if recovery efforts are directed toward them. Goals in the lower Pahsimeroi River and Patterson/Big Springs Creek are to enhance fish migration in both streams by increasing flow regimines and reestablishing habitat connectivity to unused stream reaches (P. Murphy, 2008). Completed and ongoing projects have enhanced flows in PBSC and the Pahsimeroi. This project will enhance the vegetation along reconnected streams including PBSC and Duck Creek. It will also reduce stream bank erosion and sediment transport by reducing cattle grazing.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):

IDFG has recently increased their efforts to monitor the flows in PBSC following the completion of the P-9 Project. Custer SWCD monitors projects annually for compliance or as requested by project financial partners.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: Approximately 2 miles of PBSC will be enhanced and protected with this fence. An additional 2 miles of spring creek will also be protected.

2.9. Total PCSRF funds requested: $25,704.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $12,834.00

2.11. Anticipated project start date(m/d/yy): 9/1/2008

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 9/1/2009

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:

1) Design (NRCS) 9/30/08
2) Cultural Survey (NRCS) 9/30/08
3) Develop Bid Packet 9/30/08
4) Secure Agreements with landowner 10/30/08
5) Install Fence - 9/30/08 through 9/30/09

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:

Custer SWCD and Beartooth owners have met with neighboring landowners on the PBSC who have supported the project. The landowner involved in the project has requested assistance and has signed a letter of intert for theproject.

4.2. Assess community support for the project:

Custer SWCD advertised for public comment fo the District's Annual Plan of Operations and Projects on March 5, 2008.Custer County Commissioners have been provided a copy of CSWCD project list. Futher the District places public comment for projects on the agenda for each monthly meeting. The District

has received tentative support from IDFG and NRCS based on site visits and meetings with the landowner on other projects on this property.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
This project meets aquitic Objectives 30-A and 30 B of the Salmon Sub Basin Plan (2004): "Objective 30A: Starting in critical habitat areas, reduce instream sedimentation to levels meeting applicable water quality standards and measures, with an established upward trend in the number of stream miles meeting such criterion by 2019. Objective 20-B: Starting at the lower reaches of the mainstem, or where there are o verlapping areas of occupied Chinook and steelhead habitat, rehabilitate and enahnce riparian vegetation to levesl that are within the historic range of natural varibility."

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
According to the Model Watershed Plan (ISCC) 1995, the is reach of the Pahsimeroi has the following priorities for the listed goals: 1) Flows: high 2) Barriers: High 3) Pools: Low 4) Riparian: High 5) Sediment: High
Using the SHIPPUS system, Lower Pahsimeroi (Mouth to Hooper Lane) has an adjusted percentage total of 73% based soley on habitat and biological factors. This means that Patterson/Big Sprngs Creek and sections of the Pahsimeroi addressed within this proposal is a Priority #1 Tributary stream within the Pahsimeroi for fish screening and habitat improvement, having received over 70% of the possible points. Lower Pahsimeroi (mouth to Hooper Lane) is the highest scoring segment in the Pahsimeroi (SHIPUSS 2005). This project meets Objective 30 A and B of the Sub-basin plan (see above 4.3)

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:
The project was ranked and approved by the Upper Salmon Basin Watershed Project at their August 6th Tech Team Meeting. CSWCD is awaiting written response of outcome. The proposal was presenteed by Mark Davidson, TNC. Please contact Mark for questions related to ranking.

5. Permits

5.1. List all government permits known to be needed to complete project:
Cultural Survey, ESA Compliance related to federal funding

5.2. Landowners granting access for project (please attach access agreements):
Verbal was given March 2008. Letter of Intent confirmed approval (attached)

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary	1120	1120	BPA		Project Manager, Karma Bragg via BPA	1120	2240
Fringe							
Travel	104	104	BPA		BPA funded mile to project area	104	208
Supplies							
Communications/Utilities		300	BPA			300	300
Training							
Lease/Rental		600	BPA			600	600
Land Acquisition							
Capitalized Equipment							
Equipment O&M							
Subcontracts	24,480	6,120	BPA	4,590	Landowner Fence Layout cost share	10710	35,190
Other							
Indirect							
TOTAL	25,704	8,244		4,590		12,834	38,538

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SHPR Supplement form* and attach to this form.

7.1. Worksite number 1 of 1

7.2. Worksite name: Patterson/Big Springs Creek Fence

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:

1) Final Design (NRCS) 9/30/08
2) Cultural Survey (NRCS) 9/30/08
3) Develop Bid Packet 10/30/08
4) Secure Agreements with landowner 11/30/08
5) Install Fence -9/30/08 - 8/30/09

7.4. County where worksite is located: Lemhi County side of Custer SWCD

7.5. Land ownership at worksite (identify percentage):
Private: 100%
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☐ Yes
☒ No

Provide one the following:
Latitude: 44.39'06.57" (Decimal format)
Longitude: -114-00'51.40" (Decimal format)
- *Or*-
Streamname: Patterson/Big Sprngs Creek
Begin Ft:
End Ft:
LLID:
-*Or*-
Township: 15N
Range: 21E
Section: 6
-*Or*-
3rd Field HUC:

4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 10/1/08

7.8. Anticipated work end date at this worksite (m/d/yy): 9/30/09

7.9. List salmonids historically present at this worksite:
Chinook, Steelhead, Bulltrout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- [x] Snake River Spring/Summer-run ESU Chinook Salmon
- [x] Snake River Fall-run ESU Chinook Salmon
- [x] Snake River Basin ESU Steelhead
- [ ] Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- [ ] Biological processes
- [x] Channel conditions
- [ ] Estuarine and near-shore habitat
- [ ] Exotic species
- [ ] Fire regime
- [ ] Floodplain conditions
- [ ] Irrigation diversions – screens
- [ ] Lake Habitat
- [ ] Loss of access to spawning and rearing habitat
- [ ] Predator/competitor interactions
- [x] Riparian conditions
- [x] Streambed sediment conditions
- [x] Temperature
- [ ] Trophic interactions
- [x] Water quality
- [ ] Water quality (toxics)
- [x] Water quantity

Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable, please answer each highlighted field. If a highlighted field does not apply enter zero or NA.

Screening

- Number of screen(s) installed: NA
- Flow rate of water diverted (cfs):
- Quantity of water protected by screens (duty):

Instream Habitat
- Number of miles of streambank stabilization treatment (miles to .01 miles): 0
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles): 0

Instream Flow
- Amount of water returned to the stream (cfs): 0
- Start date of the return flow (m/d/yy):
- End date of the return flow (m/d/yy):
- # of water flow gauges installed:
- Volume of water leased or purchased (cfs):

Fish Passage Improvement
- Number of fish passage blockages removed or improved: 0
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles):
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to .01 miles):

Riparian Habitat
- Length of riparian stream bank treated (miles to .01 miles): 3.82
- Amount of riparian area treated except for invasive species treatment (acres): NA
- Amount of riparian area treated for invasive plant species (acres): NA

Upland Habitat
- Amount of upland area treated (acres): NA
- Length of road treated (miles to .01 miles): NA

Wetland
- Amount of wetland treated (acres): 5 acres
- Amount of artificial wetland created (acres): NA
- Amount of wetland area of invasive species proposed for treatment and actually treated (acres): NA

Land acquisition/easements/leases
- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres): NA
- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles): NA

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

Pacfic Coast Salmon Recovery Cost Share Summary

Type	Fence	Footage			
Jack	Fence A	4750			
Jack	Fence B	1370			
Total Footage		**6120**	**5.75**	**$ 35,190**	

Type	Cost Share Partner	Footage	Rate	Total	Rough %
Cash	BPA	6120	$ 1.00	$ 6,120.00	16.00%
Cash	PCSRF	6120	$ 4.00	$ 24,480.00	63%
Cash	PCSRF - Staff/Travel			$ 1,224.00	4%
Cash	BPA - Staff/Com/Rent			$ 2,124.00	5%
In Kind	Landowner - Layout	6120	$ 0.75	$ 4,590.00	12.60%
			$ 5.75	**$ 38,538.00**	**100.00%**

		Rate	Amount	Total	
Salary	Karma Bragg/Manager	$ 28.00	40	$ 1,120	Hours
Travel	Karma Bragg/Manager	0.585	177	$ 104	Miles
Communications	Fax/Phone/Utilities	6	50	$ 300	
Rent/Utilities	Office Space	6	100	$ 600	
				$ 2,124	

Letter of Intent
Patterson/Big Springs Creek Fence Project

Scope of Project

Beartooth Capitol under direction of Court Smith has requested assistance from the Custer Soil and Water Conservation District for riparian fencing. The request is for approximately 4500 feet of riparian and pasture management fence that will include enhancement of the Pahsimeroi, Patterson Big Springs Creek and springs in the project area. Livestock grazing of the area will be used as a tool for plant growth and will be done under an NRCS grazing plan. This area is also under easement with The Nature Conservancy who by way of signing this letter concurs with the basic scope of project.

Approvals:

We understand that we will be provided an opportunity to review and make comment on the draft plans for the projects and that the final plans and specifications must meet the approval of the landowners participating in this project. We further understand that: some cost share may be required (ie: fence layout), and that landowners will be responsible for the operation and maintenance of the system, when installed and that monitoring of the project will be done for a period of 15 year or the life of the contract. Agreements established for the project will be recorded with the deed of the land and will remain in the place or origin for no less that the life of the project estimated at 15 years.

We understand that ESA consultations and plan development may be required that the landowners will authorize access, if necessary, to the project site for plan development and consultation purposes. If such access is required, the agencies will notify the landowners in advance of entering private lands.

We understand that this project is pending final funding approval from Bonneville Power Administration and/or Pacific Coastal Salmon Recover Funds based on review of the proposal presented to landowners by Custer SWCD and approved by the landowner.

We agree to the principle concept of this project, and upon approval of the final design will allow access to the project site for the purpose of survey and construction. This letter in no way obligates landowners to the project unless final approval of designs and specifications can be reached.

A design and bid packet will be developed with assistance from the CSWCD/NRCS for the projects. Three bids will be solicited for the materials and installation. Landowners will agree to the final design prior to bids being solicited.

Landowners will sign a formal agreement with the Custer Soil and Water Conservation District **prior to beginning any construction or purchase of materials. Any work completed prior to signing the agreement will not be paid for under CSWCD agreement.** Operation and maintenance of the new works of improvements will be the responsibility of the landowners after the project is installed.

8/4/08

Big Spring Creek, LLC

Upper Salmon Basin
Watershed Project

From the
Middle Fork to the
Headwaters of the
Salmon River Basin

Coordinated by
•
Idaho Soil
Conservation
Commission
•
Custer Soil & Water
Conservation
District
•
' emhi Soil & Water
Conservation
District

August 29, 2008

Michael Edmonson
Idaho Governor's Office of Species Conservation
PO Box 83720
Boise, ID 83720-0195

Dear Michael:

I am writing in support of the Idaho Department of Fish and Game (IDFG) Fish Screen Maintenance proposal for Pacific Coastal Salmon Restoration Funding for the summer 2008 solicitation. The Upper Salmon Basin Watershed Project (USBWP) Technical Committee (Team) has discussed and reviewed this proposal from the conceptual phase over a year ago to the application submission in late-August. The proposal involves the IDFG Screen Program which has been an integral part of the USBWP and essential to the goals and objectives of fish restoration.

One of the most important aspects of fish population recovery and maintenance in the upper Salmon River is safe fish passage. To date, the Fish Screen Program has provided this service on main-stem rivers and a few key tributary streams with great success. As the USBWP and IDFG Screen Program work together to expand anadromous and resident fish access to tributaries, we are exceeding the Screen Program's ability to provide the necessary operation and maintenance at these new screen facilities.

This proposal would provide funding to ensure that our facilities constructed in key tributary habitats are properly operated and maintained. This would insure the continued expansion of quality fish habitat that is essential to all life-stages of Chinook salmon, steelhead, bull trout and other native fishes.

Your support and assistance in conservation in the Upper Salmon Basin watershed is greatly appreciated.

Sincerely,

Jude Trapani

Jude Trapani, Chairman
USBWP Technical Team

cc: Hans F. Koenig, Project Coordinator
USBWP

31 Highway 93 North
Suite B
Salmon, Idaho 83467
•
Phone
208-756-6322
208-756-6325
•
Facsimile
208-756-6376
•
Email
usbwp@centurytel.net

IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Enhancement (SE)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Department of Fish and Game

1.2. Contact person (lead person to be contacted regarding project): Tom Curet

1.2.1. Address: 99 Hwy 93 North, Salmon, ID 83467

1.2.2. Telephone: 208-756-2271

1.2.3. Fax: 208-756-6274

1.2.4. Email: tcuret@idfg.idaho.gov

1.3. Technical contact (person who will be project lead/implementer):Tom Curet

1.3.1. Address: 99 Hwy 93 North, Salmon, ID 83467

1.3.2. Telephone: 208-756-2271

1.3.3. Fax: 208-756-6274

1.3.4. Email: tcuret@idfg.idaho.gov

2. Project Overview

2.1. Project title: Screen O&M

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☐ Clearwater
☒ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Enhancement**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):
Screen operation and maintenance is critical to successful stream reconnection projects throughout the upper Salmon Basin. As streams are reconnected, diversions must be reconstructed and screened according to NOAA guidelines. However, current federal funding does not provide for the addition of new screen operation and maintenance needs. Annually, O&M for each new screen cost between $1200 and $1500. This amounts to an increased burden on the IDFG Screen Program, as they are currently the only entity charged with screen maintenance.
We wish to provide O&M funding for new screens so the screen shop will have the resources to maintain these screens. We will be able to provide for screen tenders and utility craftsmen to insure proper operation and maintenance of the screens. Our goal is to provide screens for all diversions involved with stream reconnect projects. We hope to insure that all new screens are adequately maintained.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):
Additional funds are needed because current federal funding has not kept pace with the addition of new screens. If additional funding is not available, we face the real possibility of incurring take damages under the Endangered Species Act. Failure to act on an obvious source of fish mortality gives the perception that all parties are negligent and liable in the take of listed species. While the legal ramifications support funding, the biological aspect of preventing fish take as we continue to restore listed species habitat remains the strongest argument. Without adequate screen maintenance, habitat and reconnect projects will fail as the screens stop functioning. This project directly addresses increased natural fish production as a supplementation program through reconnected streams, rather than a traditional fisheries stocking supplementation program.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):
This project will aide in preventing listed salmonid species from becoming stranded in irrigation ditches associated with newly reconnected streams.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):
The monitoring and operation of screens will be performed by IDFG Screen Program screen tenders. Screen maintenance and operation will be monitored during local irrigation seasons, typically May - October. Annual cost per screen is estimated between $1200 and $1500.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: dependent on new projects being completed

2.9. Total PCSRF funds requested: $23,434.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $12,000.00

2.11. Anticipated project start date(m/d/yy): 1/1/2009

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 12/31/2009

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:
Quarterly reports (April, July, October, January); final report (December 2009)

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
no landowner support is required for this project

4.2. Assess community support for the project:
community support is high for this project

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
Addresses fish take and habitat issues listed in the draft Lemhi Conservation Plan.

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
The draft Lemhi Conservation Plan notes disconnected streams as being a major cause of low system fish production. By preventing fish from stranding in ditches, this project addresses stream connectivity and natural salmonid production.

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:
A supporting letter has been attached due to the unique nature of this project.

5. Permits

5.1. List all government permits known to be needed to complete project:
none

5.2. Landowners granting access for project (please attach access agreements):
none

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary				7,100	BPA	7,100	7,100
Fringe				4,900	BPA	4,900	4,900
Travel	4,000						4,000
Supplies	5,000						5,000
Communications/Utilities							
Training							
Lease/Rental	5,000						5,000
Land Acquisition							
Capitalized Equipment							
Equipment O&M	5,500						5,500
Subcontracts							
Other	500						500
Indirect	3,434						3,434
TOTAL	23,434			12,000	BPA	12,000	35,434

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place. Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SE Supplement form* and attach to this form.

7.1. Worksite number 1 of n/a

7.2. Worksite name: n/a

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:
screen operation and maintenance

7.4. County where worksite is located: Lemhi and Custer

7.5. Land ownership at worksite (identify percentage):
Private: n/a
State: n/a
Federal: n/a

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☐ Yes
☒ No

Provide one the following:
Latitude: n/a (Decimal format)
Longitude: n/a (Decimal format)
- *Or*-
Streamname: n/a
Begin Ft: n/a
End Ft: n/a
LLID: n/a
-*Or*-
Township: n/a
Range: n/a
Section: n/a
-*Or*-
3rd Field HUC: n/a
4th Field HUC: n/a
5th Field HUC: n/a

Other location notes: screen operation and maintenance will be specific to individual screen locations.

7.7. Anticipated work start date at this worksite (m/d/yy): 1/1/09

7.8. Anticipated work end date at this worksite (m/d/yy): n/a

7.9. List salmonids historically present at this worksite:
Chinook salmon, Steelhead trout, Bull trout, Westslope Cutthroat trout, Redband trout, and Mountain whitefish.

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- [x] Snake River Spring/Summer-run ESU Chinook Salmon
- [x] Snake River Fall-run ESU Chinook Salmon
- [x] Snake River Basin ESU Steelhead
- [x] Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- [x] Biological processes
- [x] Channel conditions
- [ ] Estuarine and near-shore habitat
- [ ] Exotic species
- [ ] Fire regime
- [ ] Floodplain conditions
- [x] Irrigation diversions – screens
- [ ] Lake Habitat
- [x] Loss of access to spawning and rearing habitat
- [ ] Predator/competitor interactions
- [ ] Riparian conditions
- [ ] Streambed sediment conditions
- [ ] Temperature
- [ ] Trophic interactions
- [ ] Water quality
- [ ] Water quality (toxics)
- [ ] Water quantity

Other:

7.12. Salmon enhancement projects enhance depressed stocks of naturally spawning anadromous and salmonids through salmonid supplementation, reduction in fishing effort on depressed wild stocks; or enhancement of Pacific salmon fisheries on healthy stocks. Please check the type of enhancement addressed by this project and then complete the following sections applicable to your choice or choices:

- [ ] Supplementation
- [ ] Fish Marking Technology
- [ ] Production Technology
- [x] Fisheries Management

☒ Rebuilding weak stocks or sustaining/enhancing salmon populations

Does the project complement habitat restoration projects?
Yes ☒ No ☐ If yes, name the project or projects:

Will directly compliment Big Timber Creek reconnection in the Upper Lemhi Basin.

- **Fish Marking and Product Technology Enhancement** - This enhancement type invests in fish marking, hatchery modification or production improvements. Please answer the yes and no questions and then select the enhancement type and enter the proposed count:

  Does the project evaluate potential sites or strategies for Pacific salmon enhancement to promote fisheries that do not impact depressed stocks?
  Yes ☐ No ☒

  Enhancement projects that reduce effort on depressed stocks. Report whether or not the project implements management measures designed to reduce fishing effort on depressed stocks: Yes ☐ No ☒

☐ Acquisition of supplemental sites	Proposed count
☐ Facility modification	Proposed count
☐ Fish marking equipment (including trailers)	Proposed count
☐ Fish transport	Proposed count
☐ Increased fish marking capacity (Potential number of fish marked)	Proposed count
☐ Production technology improvements	Proposed count
☐ Rearing/acclimation ponds	Proposed count
☐ Traps/weirs	Proposed count

  - *Fish Marking Details*

    Please check the fish marking <u>purpose</u> (underlined font) that is applicable to your project, then select the species and enter the proposed count:

    ☐ <u>Fry/smolts produced through production technology improvements</u>

☐ Chinook	Proposed count
☐ Sockeye	Proposed count
☐ Coho	Proposed count
☐ Steelhead	Proposed count

    ☐ <u>Number of fish marked</u>

☐ Chinook	Proposed count
☐ Sockeye	Proposed count
☐ Coho	Proposed count
☐ Steelhead	Proposed count

☐ Production technology improvements
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

- **Rebuild Weak Stock or sustain/enhance salmon populations** -This enhancement type is for projects that rebuild weak stocks or sustain/enhance naturally spawning salmon populations. Please check the purpose (underlined font), then select the species and enter the proposed count:

☐ Hatchery fry/smolt released to compensate for reductions in harvest levels to meet Pacific Salmon Treaty obligations.
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Compensate for weak or depressed stocks (management)
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Mark as a result of marking enhancement
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Hatchery fry/smolt released for the purpose of natural spawning
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Hatchery fry/smolt released for the purpose of redirecting fishing effort
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Releases compensate harvest reductions
- ☐ Chinook Proposed count
- ☐ Sockeye Proposed count
- ☐ Coho Proposed count
- ☐ Steelhead Proposed count

☐ Hatchery fry/smolt released for supplementing weak/depressed stocks

☐ Chinook	Proposed count
☐ Sockeye	Proposed count
☐ Coho	Proposed count
☐ Steelhead	Proposed count

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

IDAHO PCSRF PROPOSAL APPLICATION – Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process, to Jeff Allen, Office of Species Conservation, at: medmondson@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Soil Conservation Commission

1.2. Contact Person (lead person to be contacted regarding project): Jerry Nicolescu

1.1.1. Address: P.O. Box 790

1.1.2. Telephone: (208) 332-8650

1.1.3. Fax: (208) 334-8650

1.1.4. Email: jnicolescu@agri.idaho.gov

1.3. Technical contact (person who will be project lead/implementer): Wendy Koons, Upper Salmon Basin Watershed, Project Planner

1.3.1. Address: 995 Riverfront Drive, Suite B, Salmon, ID 83467

1.3.2. Telephone: (208) 756-6322

1.3.3. Fax: (208) 756-6376

1.3.4. Email: wkoons@agri.idaho.gov

2. Project Overview

2.1. Project title: **Whitefish Ditch Closure/Alternative Stockwater**

2.2. Identify the 3rd field HUC(s) in which project will take place:
☐ Clearwater
☒ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: Salmon Habitat Protection and Restoration

2.4. Project abstract: (Summarize the project – Two to three paragraph limit): The proposed Whitefish Ditch Closure Alternative Stockwater Project is necessitated by and mitigative to the Upper Lemhi Flow Improvement Project funded in the Round 5 PCSRF solicitation. Completion of the Upper Lemhi Flow Improvement Project, which is anticipated for September 2008, will improve habitat conditions for Chinook salmon and steelhead in the upper Lemhi River (Figures 1 and 2) by eliminating a large irrigation ditch (Whitefish Ditch) in the headwaters of the Lemhi River and returning flow from the Hawley Creek/Eighteen-mile Creek Spring Complex to its historic channel, reconnecting the creek/spring complex with the mainstem Lemhi and significantly improving stream flow in the upper river. Additionally, the Upper Lemhi Flow Improvement Project will remove several major fish passage barriers that exist in Hawley Creek, Eighteen-mile Creek and Canyon Creek. However, closure of the Whitefish Ditch will eliminate winter stockwater for one of the cooperating landowners. The Whitefish Ditch Closure Alternative Stockwater Project proposes to install a new stockwater system in order to mitigate any potential harm to the landowner, while allowing for the successful completion of the Upper Lemhi Flow Improvement Project and its associated habitat improvement benefits for ESA-listed and resident fish species.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed): Whitefish Ditch currently captures water originating from springs near the origin of the Lemhi River and also intercepts water from Hawley, Eighteen-mile, and Canyon Creeks, before delivering water to its point of use (Figure 1). With the completion of the Upper Lemhi Flow Improvement Project, stream flow ranging from 5-8 cfs, previously captured by Whitefish Ditch, will be directed back to the headwaters of the Lemhi River, thus improving spawning and rearing conditions for salmon and steelhead in the upper Lemhi basin (Figure 2). Fish barriers will also be removed on those tributaries currently being intercepted, thereby improving access by fish to these tributaries. However, by eliminating Whitefish Ditch, the potential exists to harm one of the cooperating landowners. The landowner currently utilizes Whitefish Ditch for winter stockwater. If Whitefish Ditch is to be closed and the water it captures returned to the upper Lemhi to improve flow for ESA-listed fish, an alternative stockwater system must be installed in order to prevent harm to the landowner. The Whitefish Ditch Closure Alternative Stockwater Project proposes to install a gravity-fed pipeline, approximately 3,960 feet in length, into a portion of the Whitefish Ditch (from the current ditch head to Canyon Creek) after the ditch has been closed (Figure 3). A small amount of water will be withdrawn from the Hawley/Eighteen-mile Creek Spring Complex flow and conveyed through the pipeline to three free-flowing water troughs. Total capacity of the troughs will equal 2,550 gallons. Excess water withdrawn

for stock will be returned to the Lemhi River via an existing fish screen return pipe on Canyon Creek. Stockwater at this location is required from mid-October through April. The landowner has made application to IDWR for a stockwater right from the Hawley/Eighteen-mile Complex. The landowner will provide in-kind labor and equipment use as cost share for the project.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon): Mainstem flow in the Lemhi River is important for fish spawning and rearing. It has been suggested that increased flow results in improved survival of juvenile fish. The Upper Lemhi Flow Improvement Project will likely contribute 5-8 cfs to the Lemhi River, and open passage to good quality, upstream habitat in Canyon, Hawley and Eighteen-mile Creeks. However, unless an alternative stockwater system is installed via the proposed Whitefish Ditch Closure Alternative Stockwater Project, the Upper Lemhi Flow Improvement Project and its benefits for ESA-listed fish cannot be implemented without harming a cooperating landowner. Thus, the Whitefish Ditch Closure Alternative Stockwater Project is a necessary mitigation measure to ensure the successful completion of the Upper Lemhi Flow Improvement Project.

Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs): This project will be included in the Upper Salmon Basin Watershed Program (USBWP) monitoring schedule after inspection by USBWP and IDFG staff have certified that construction has met all standards and specifications as stipulated in the contract between the ISCC and the landowner/irrigator. Monitoring points will be established prior to project construction and USBWP staff, on behalf of the ISCC, will conduct photo-point and visual monitoring within one year of implementation to evaluate the effectiveness of the practice and verify that structures are functioning as intended. Additional photo-point and visual inspections will occur at 5-year intervals for the life of the landowner/irrigator contract with the ISCC (i.e., a period of 15 years). Monitoring data is collected according to the USBWP monitoring plan and recorded and stored at the USBWP office in Salmon, ID. Costs for this monitoring are included in the USBWP operating budget.

As this project is a necessary mitigative measure to the Upper Lemhi Flow Improvement Project, which has received substantial technical assistance from IDFG, the IDFG will supervise additional monitoring and evaluation activities following a monitoring and adaptive management framework that is being described in the developing Lemhi Conservation Program. Pursuant to Section 6 of the ESA, compliance and effectiveness monitoring activities must be conducted and annual reports on those activities must be submitted to the National Marine Fisheries Service and U.S. Fish and Wildlife Service (NMFS and USFWS) so that the Services can make the required findings on whether the activities implemented under the Section 6 Lemhi Conservation Plan meet ESA standards. Monitoring efforts conducted by the IDFG will be supervised by the

Lemhi Conservation Program Coordinator (IDFG) currently supported by PCSRF contract # 011 05 SA.

With respect to implementation monitoring, the IDFG will design an implementation compliance framework for use in collaboration with the USBWP, IDWR, the IDFG Screen Program, landowners, and any other entities involved in project implementation. The IDFG will provide annual reports to the Services documenting implementation of project components and advising whether implementation is proceeding according to the expected timeline. The IDFG will design an effectiveness monitoring protocol, using a combination of existing monitoring activities and new research methods, to establish the extent to which these projects increase the quantity and improve the quality of existing habitat. The protocol will be used to determine the direct affect on Chinook salmon and steelhead by evaluating adult and juvenile distribution, abundance, and survival.

2.7. Length of stream (.01 miles) and/or number of acres to be monitored as part of project: Approximately 2 miles of the upper Lemhi will be monitored in conjunction with the completion of the Upper Lemhi Flow Improvement Project and subsequently the Whitefish Ditch Closure Alternative Stockwater Project.

2.8. Total PCSRF funds requested: **$13,078**

2.9. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program – please see important attached cost share guidelines): **$6,810**

2.10. Anticipated project start date (m/d/yy): November 1, 2008

2.11. Anticipated project end date *(no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly)* (m/d/yy): March 31, 2009

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:

Task/Milestone	Responsible Entity	Estimated Timeline for Completion
Project Scoping and Proposal Development	USBWP	August 2008
Applicaton for Stockwater Right	Landowner	August 2008
Stockwater Right Granted	IDWR	October 2008
Anticipated PCSRF Award	OSC/PCSRF	October 2008
Landowner Contract	USBWP/ISCC	Late October/Early November 2008
Materials Purchased	Landowner	May 2007
Construction and Inspection Oversight	Landowner/USBWP	November 2008
Quarterly Reporting	USBWP	Quarterly
Final Report	USBWP	February 2009

4. Project Support and Relationship to Watershed/Subbasin Planning

4.1. Describe landowner support for the project: The landowner/irrigator strongly supports this project. Some of the strategies used in this project were suggested by the landowner. Furthermore, the landowner/irrigator has supported and contributed to past conservation measures on their property, including the Upper Lemhi Flow Enhancement, Canyon Creek Riparian Fence and Big Timber 1.4 cfs Flow Improvement projects, all of which have either been implemented or are in the process of implementation with PCSRF funds Additional conservation projects on the landowner's property (e.g. Big Springs Creek Livestock exclusion fence and anadromous fish screens) demonstrate a strong commitment to improving fish habitat on private lands.

4.2. Assess community support for the project: The community of landowners and water users in the Lemhi River watershed have demonstrated on-going support for conservation efforts and habitat improvements throughout the watershed. This project has also been reviewed and approved by the USBWP Technical Team and USBWP Advisory Committee. Both the Technical Team and Advisory Committee are comprised of community representatives and representatives from local, state and Federal conservation and natural resource agencies. These representatives provide important input on proposed projects.

4.3. Does the project address prioritized objectives and/or strategies identified in relevant watershed and/or Northwest Power and Conservation Council approved subbasin plan(s)? If so, identify relevant plan(s): This project is a mitigation measure contributing to the benefits of the Whitefish Ditch closure, which is part of the Upper Lemhi Flow Improvement Project, previously funded by PCSRF. Closure of the Whitefish Ditch addresses: 1) prioritized objectives to functionally reconnect habitats and maintain metapopulations of fish, as defined in the 2004 Salmon River Sub-basin Assessment; and 2) the recommendation to reconnect tributaries dewatered for irrigation for the Lemhi River, Hayden Creek to Leadore reach, as listed in the 2002 the USBWP Stream Habitat Inventory Report. As such, this project's association to the Upper Lemhi Flow Improvement Project also helps to satisfy two measures prescribed in the Lemhi Conservation Program to improve fish passage and the quality of stream habitat. These measures are: 1) reconnect four prioritized tributaries of the Lemhi River in the first five years of the Section 6 Agreement under the ESA, and 2) improve mainstem flow in the upper Lemhi River.

4.4. Does the project address limiting factors identified in the relevant watershed and/or subbasin plan(s)? If so, identify plan(s) and the limiting factors within those plans: The Whitefish Ditch Closure Alternative Stockwater Project helps to address habitat fragmentation as a limiting factor for fish, as defined in the 2004 Salmon River Sub-basin Assessment and barrier free passage for adult and juvenile migration, as defined in the 1994 Model Watershed Plan, by mitigating

for and allowing the full potential of benefits from the Upper Lemhi Flow Improvement Project.

4.5. Has the project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the subbasin working group? Please attach group's findings: The Whitefish Ditch Closure Alternative Stockwater project was reviewed by the USBWP Technical Team on August 6, 2008. It was not given a ranking score because the project will primarily be constructed in a closed irrigation ditch. However, because this project mitigates for and contributes to the habitat improvement benefits of the Upper Lemhi Flow Improvement Project by allowing for the reconnection of the Hawley/Eighteen-mile Creek Spring Complex to the Lemhi River, it is strongly supported by the USBWP Technical Team. The Upper Lemhi Flow Improvement Project, for which the proposed project will mitigate, was ranked by the USBWP Technical Team on December 6, 2006, and received high rankings for both its passage and habitat benefits (see pages 15-18 of this proposal for ranking details).

5. Permits

5.1. List all government permits known to be needed to complete project: This project is presumed to be exempt from government permitting because construction will take place on private property within a closed/abandoned irrigation ditch.

5.2. Landowners granting access for project (please attach access agreements): Construction of all components of the Whitefish Ditch Closure Alternative Stockwater Project will occur on the landowner's private property, within a closed/abandoned irrigation ditch.

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete budget categories. Attach additional budget detail if necessary.

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal Cash Match**	*Identify Non-Federal Cash Match Source*	*Non-Federal In-kind Match**	*Identify Non-Federal In-Kind Match Source*	*Total*
Salary						
Fringe						
Travel						
Supplies						
Communications/Utilities						
Training						
Lease/Rental						
Land Acquisition						
Capitalized Equipment	$8,540 (pipe, troughs, concrete, hardware, etc.)					$8,540
Equipment O&M	$1,870 (trackhoe rental**)					$1,870
Subcontracts					$6,810 (landowner labor and equipment use = 90 hrs for backhoe & operator &/or trackhoe if needed + manual labor for concrete work and trough installation)	$6,810
Other	$1,500 (contingencies)					$1,500
Indirect	$1,168 (ISCC rate @ 9.8%)					$1,168
TOTAL	**$13,078**				**$6,810**	**$19,888**

*Total 33% non-Federal cash and/or in-kind is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

****NOTE: $1,870 trackhoe rental is contingent upon soil moisture conditions at the time of implementation.**

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while other will have many. Complete and attach additional project worksite information pages as necessary.

7.1. Worksite number 1 of 1

7.2. Worksite name: **Whitefish Ditch Closure Alternative Stockwater**

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:

- Water rights application made to IDWR
- Stockwater right granted
- Materials purchased
- Construction/installation of stock watering system
- Inspection/confirmation of completed construction

7.4. County where worksite is located: Lemhi

7.5. Landownership at worksite (identify percentage):
Private: 100%
State:
Federal:

7.6. Worksite location:

Is GIS data available for the worksite (e.g., ARC GIS data files):
☒Yes
☐ No

Provide the following:
Latitude: 44.68361°N
Longitude: 113.35389°W
and
3rd Field HUC:
4th Field HUC: 1760204 – Lemhi Basin
5th Field HUC: 176020404 – Eighteen-mile

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): November 1, 2008

7.8. Anticipated work end date at this worksite (m/d/yy): March 31, 2009

7.9. List salmonids historically present at this worksite: Chinook salmon, steelhead/rainbow trout, bull trout, westslope cutthroat trout, red-band rainbow

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☒ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☐ Biological processes
- ☒ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☒ Irrigation diversions – screens
- ☐ Lake Habitat
- ☒ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxins)
- ☒ Water quantity
- ☐ Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable, please answer each highlighted field. If a highlighted field does not apply, enter zero or NA.

Screening

- Number of screen(s) installed: 0
- Flow rate of water diverted (cfs): 0
- Quantity of water protected by screens (duty): 0

Instream Habitat

- Number of miles of streambank stabilization treatment (miles to .01 miles): 0 miles
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles): 0 miles

Instream Flow

- Amount of water returned to the stream (cfs): 5-8 cfs with the associated Upper Lemhi Flow Improvement Project
- Start date for the return flow (m/d/yy): October 1, 2007
- End date of the return flow (m/d/yy): No end date
- # of water flow gauges installed: 1 measuring device will be installed as part of the associated Upper Lemhi Flow Improvement Project
- Volume of water leased or purchased (cfs): 0

Fish Passage Improvement

- Number of fish passage blockages removed or improved: 1
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles): No stream miles will be made accessible by the implementation of this specific project, however, elimination of the Whitefish Ditch via the Upper Lemhi Flow Improvement Project will provide access to 78 miles of the Hawley/Eighteen-mile Creek Complex and 22 miles of Canyon Creek when flow is available.
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to. 01 miles): 0 miles

Riparian Habitat

- Length of riparian stream bank treated (miles to .01 miles): 0 miles
- Amount of riparian area treated except for invasive species treatment (acres): 0 acres
- Amount of riparian area treated for invasive plant species (acres): 0 acres

Upland Habitat

- Amount of upland area treated (acres): 0 acres
- Length of road treated (miles to .01 miles): 0 miles

Wetland

- Amount of wetland treated (acres): 0 acres
- Amount of artificial wetland created (acres): 0 acres
- Amount of wetland area of invasive species proposed for treatment and actually treated (acres): 0 acres

Land acquisition/easement/leases

- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres): 0 acres

- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles): 0 acres

Cost Share Guidelines

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In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMG circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

Whitefish Ditch Current Conditions

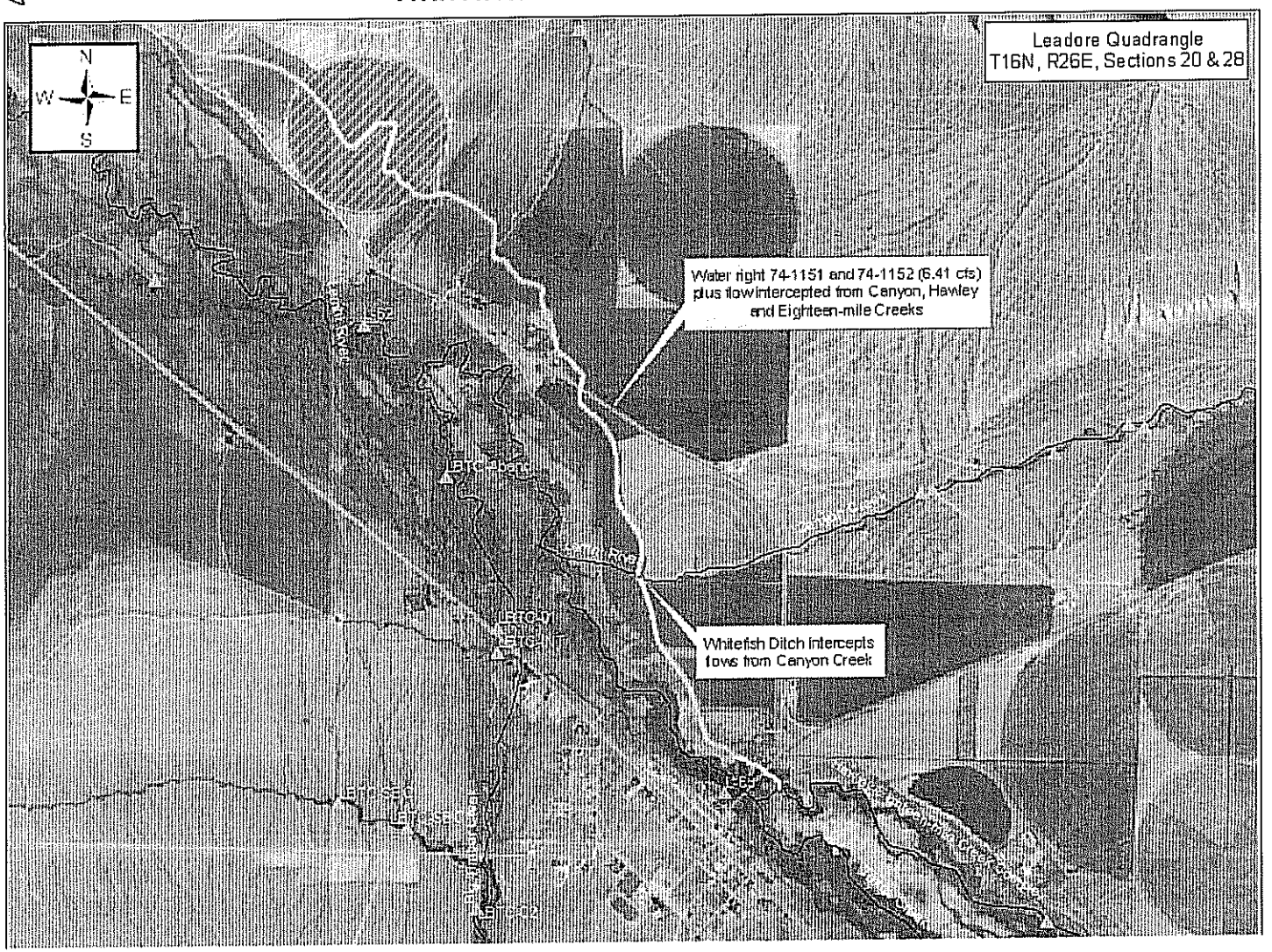


Figure 1

Proposed Upper Lemhi Flow Improvements via Whitefish Ditch Modifications

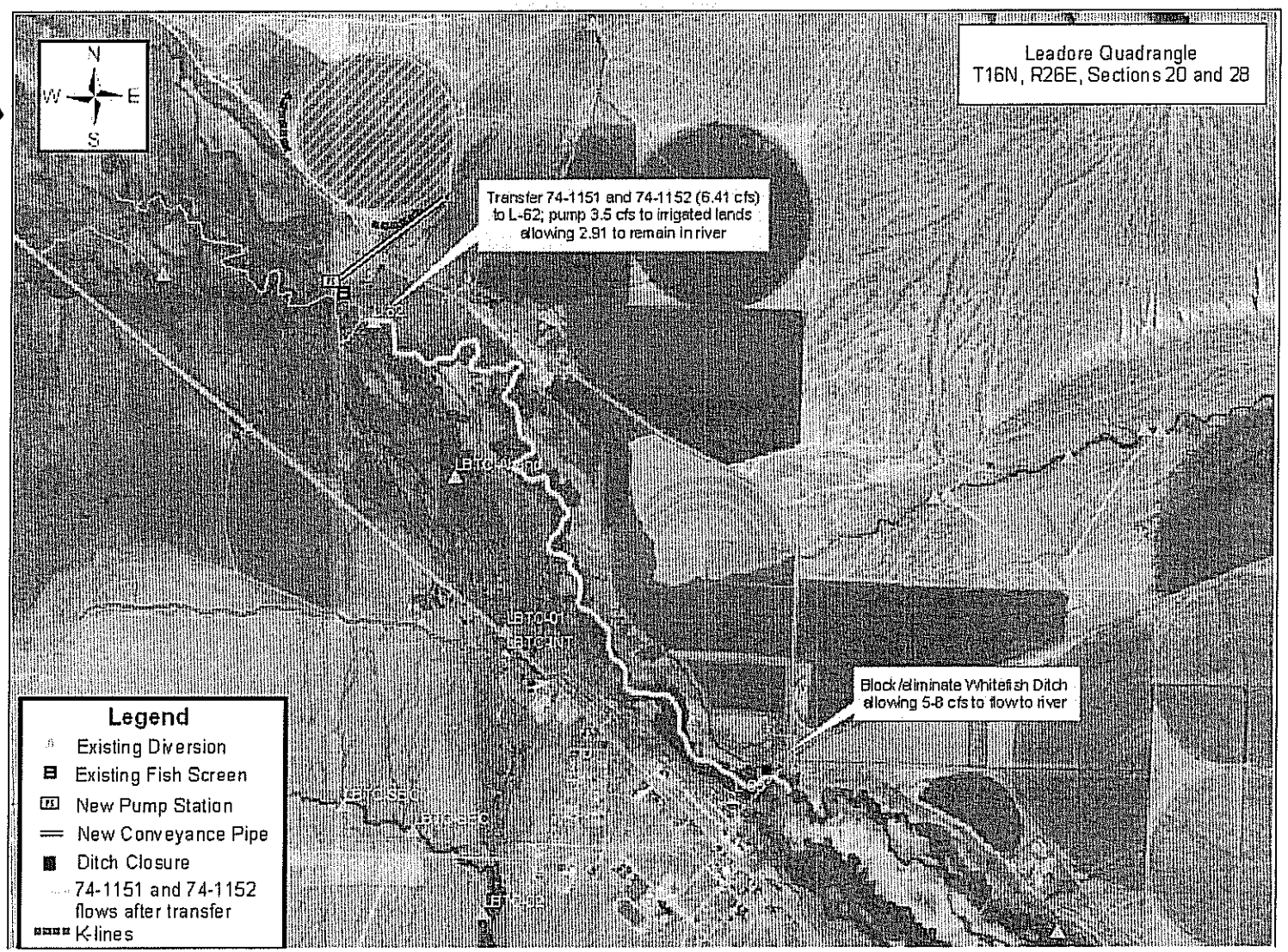
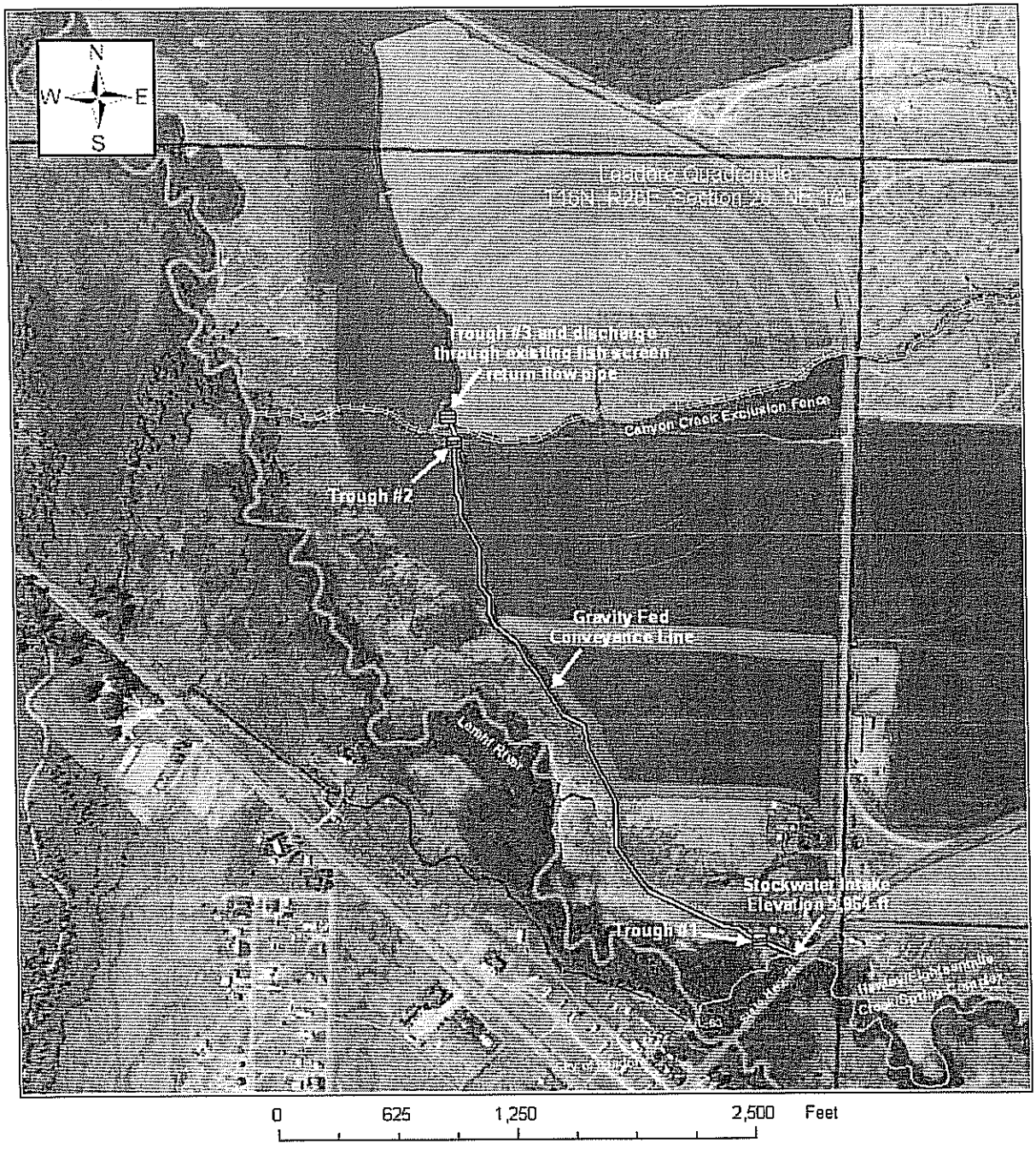


Figure 2

Figure 3

Whitefish Ditch Closure/Alternative Stockwater



Water will be piped by gravity from the Hawley/Eighteen-mile Creek/Spring complex (formerly the head of Whitefish Ditch) to three free-flowing troughs; excess water will be discharded into Canyon Creek via an existing fish screen water return pipe. This stockwater is needed from mid October through the end of April.

UPPER SALMON BASIN WATERSHED PROJECT TECH TEAM RANKING

(NOT INTENDED FOR DISTRIBUTION OUTSIDE OF THE USBWP TECH TEAM)

PASSAGE PROJECT (project name) **BIG TIMBER RECONNECT AND UPPER LEMHI FLOW IMPROVEMENT**

Passage projects include: reconnects, diversion structure modifications, culvert modifications, culvert replacement, augmented flows, etc.

1. **Limiting Factors**

1.A REACH (Maximum point value 30): Identify the **Existing Limiting Factors** for the **REACH** as indicated in the Habitat Goals and Priorities table. This table can be accessed on the USBWP Tech Team website at www.watershedproject.org. Refer to "Goals" 1 and 2 for the specific **REACH**. Using professional judgement, determine values for how the project **Addresses Limiting Factors** within the **REACH**. Multiply the **Existing Limiting Factor** value by the **Addresses Limiting Factor** value, then add these scores to obtain the **Reach Subtotal**.

	REACH (as defined in the Habitat Goals and Priorities table)				
	Existing Limiting Factors High=5 Medium=3 Low=1	x	**Addresses Limiting Factors** High/Significantly Improves=3 Medium/Enhances=2 Low/Conserves=1 Does Not Address=0	=	**Score**
Flow	5	x	3	=	15
Physical Barriers	5	x	3	=	15
			Reach Subtotal	=	30

1.B IMPACT AREA (Maximum point value 30): Using professional judgement, determine values for **Existing Limiting Factors** within the **IMPACT AREA** of the project. Determine values for how the project **Addresses Limiting Factors** within the **IMPACT AREA**. Multiply the **Existing Limiting Factor** value by the **Addresses Limiting Factor** value, then add these scores for the **Impact Area Subtotal**.

	IMPACT AREA (immediate area affected by project)				
	Existing Limiting Factors High=5 Medium=3 Low=1	x	**Addresses Limiting Factors** High/Significantly Improves=3 Medium/Enhances=2 Low/Conserves=1 Does Not Address=0	=	**Score**
Flow	5	x	3	=	15
Physical Barriers	5	x	3	=	15
			Impact Area Subtotal	=	30

2. **BENEFITS TO SPECIES AND LIFE STAGES** (Maximum point value 50): Determine values based on professional judgement and/or coordination with regional fisheries biologists. Add all of the values for the subtotal. **(Values: New=5; Significantly Improved=3; Moderately Improved=2; Slightly Improved =1 No change=0)**

Life Stage / Species	**Provides Access to Spawning/ Incubation Habitat**	**Provides Access to Rearing Habitat**
Chinook Salmon	5	5
Steelhead Trout	5	5
Bull Trout	5	5
Westslope Cutthroat Trout	5	5
Red-band Trout	5	5
Species and Life Stages Subtotal =		**50**

3. **SHIPUSS PRIORITY FOR BIOLOGICAL FACTORS:** Refer to Table 2 in the SHIPUSS document and enter the appropriate score based on the *Adjusted Percent Total* (APT) for stream or reach. Priority 1 (APT of 70% or greater) = 20, Priority 2 (APT of 50%-69%) = 10, and Priority 3 (APT of less than 50%) = 0. **20**

4. **TOTAL PROJECT SCORE** (Add the subtotals from 1A, 1B, 2 and 3): **130**

OVERALL PROJECT RANKING: Using this criteria, a score of 0 to 20 is a **low** ranking; 21 to 60 is a **medium** ranking; and 61or greater is a **high** ranking.

The OVERALL PROJECT RANKING for this project is (check one): ☐ **LOW** ☐ **MEDIUM** ☒ **HIGH**

Additional comments relevant to the biological merit of this project should be included on the reverse side of this form.

Version 5/8/2006

Comments relevant to the biological merit of this project:

- Regarding bull trout, cutthroat and rainbow – opening habitat to fluvial component. Magnitude of habitat newly opened is huge. Big Timber, Upper Lemhi, Canyon, 18-mile, Hawley. Diversity and spatial distribution significantly expanded.

UPPER SALMON BASIN WATERSHED PROJECT TECH TEAM RANKING

(NOT INTENDED FOR DISTRIBUTION OUTSIDE OF THE USBWP TECH TEAM)

HABITAT PROJECT (project name) BIG TIMBER RECONNECT AND UPPER LEMHI FLOW IMPROVEMENT

Habitat projects include: riparian protection (grazing management), riparian enhancement, bank stabilization, instream habitat enhancement (pool habitat enhancement, cover, resting areas, off-channel habitat, substrate enhancement) and flows (pulse, habitat forming, minimum target flow).

4. Limiting Factors

1.A REACH (Maximum point value 27): Identify the **Existing Limiting Factors** for the **REACH** as indicated in the Habitat Goals and Priorities table. This table can be accessed on the USBWP Tech Team website at www.watershedproject.org. Refer to "Goals" 3, 4 and 5 for the specific **REACH**. Using professional judgement, determine values for how the project **Addresses Limiting Factors** within the **REACH**. Multiply the **Existing Limiting Factor** value by the **Addresses Limiting Factor** value, then add these scores to obtain the **Reach Subtotal**.

	REACH (as defined in the Habitat Goals and Priorities table)				
	Existing Limiting Factors High=3 Medium=2 Low=1	x	**Addresses Limiting Factors** High/Significantly Improves=3 Medium/Enhances=2 Low/Conserves=1 Does Not Address=0	=	**Score**
Instream Structures/Pools	2	x	3	=	6
Temperature/Riparian	2	x	3	=	6
Sediment	2	x	3	=	6
			Reach Subtotal	=	18

1.B IMPACT AREA (Maximum point value 45): Using professional judgement, determine values for **Existing Limiting Factors** within the **IMPACT AREA** of the project. Determine values for how the project **Addresses Limiting Factors** within the **IMPACT AREA**. Multiply the **Existing Limiting Factor** value by the **Addresses Limiting Factor** value, then add these scores for the **Impact Area Subtotal**.

	IMPACT AREA (immediate area affected by project)				
	Existing Limiting Factors High=5 Medium=3 Low=1	x	**Addresses Limiting Factors** High/Significantly Improves=3 Medium/Enhances=2 Low/Conserves=1 Does Not Address=0	=	**Score**
Instream Structures/Pools	3	x	2	=	6
Temperature/Riparian	3	x	3	=	9
Sediment	3	x	2	=	6
			Impact Area Subtotal	=	21

5. BENEFITS TO SPECIES AND LIFE STAGES* (Maximum point value 45): Determine values based on professional judgement and/or coordination with regional fisheries biologists. Add all of the values for the subtotal. **(Values: High/Significantly Improves=3; Medium/Enhances=2; Low/Conserves=1; Does Not Support=0)**

Life Stage / Species	Spawning/ Incubation	Rearing	Over-wintering
Chinook Salmon	3	3	2
Steelhead Trout	1	1	1
Bull Trout	1	1	1
Westslope Cutthroat Trout	1	2	1
Red-band Trout	2	2	1
Species and Life Stages Subtotal =			**23**

***Reference Table for Benefits to Species and life Stages**

Life Stage	Needs	Potential Projects/Fixes
Spawning/Incubation	Suitable gravel	Riparian, pulse flow, pools, side channel
	Reduced fine sediment	Riparian, pulse flow, pools, structures
Over-Wintering	Flow/complexity	Quantity
	Temperature	Riparian, pulse flow, pools, quantity
Rearing	Flow	Quantity
	Temperature	Riparian, pulse flow
	Food	Riparian, pulse flow

Habitat Project Ranking Criteria continued on reverse side of this form:

6. **SHIPUSS PRIORITY FOR BIOLOGICAL FACTORS:** Refer to Table 2 in the SHIPUSS document and enter the appropriate score based on the *Adjusted Percent Total* (APT) for stream or reach. Priority 1 (APT of 70% or greater) = 20, Priority 2 (APT of 50%-69%) = 10, and Priority 3 (APT of less than 50%) = 0. | 20 |

4. **TOTAL PROJECT SCORE** (Add the subtotals from 1A, 1B, 2 and 3): | 82 |

OVERALL PROJECT RANKING: Using this criteria, a score of 0 to 20 is a **low** ranking; 21 to 60 is a **medium** ranking; and 61or greater is a **high** ranking.

The OVERALL PROJECT RANKING for this project is (check one): ☐ **LOW** ☐ **MEDIUM** ☒ **HIGH**

Comments relevant to the biological merit of this project:

- Decisions confined to immediate impact area only and not new habitats opened by project implementation.
- Reference passage ranking criteria for benefits of habitat expansion.

IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Fish & Game

1.2. Contact person (lead person to be contacted regarding project): Danielle Schiff

1.2.1. Address: 3316 16th Street Lewiston ID 83501

1.2.2. Telephone: 208-799-5010

1.2.3. Fax: 208-799-5012

1.2.4. Email: dschiff@idfg.idaho.gov

1.3. Technical contact (person who will be project lead/implementer):Danielle Schiff

1.3.1. Address: 3316 16th Street, Lewiston, ID 83501

1.3.2. Telephone: 208-799-5010

1.3.3. Fax: 208-799-5012

1.3.4. Email: dschiff@idfg.idaho.gov

2. Project Overview

2.1. Project title: Brocke - Pine Creek Bridge

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☐ Clearwater
☐ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Habitat Protection and Restoration**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):
The Potlatch River drainage contains a wild ESA listed stock of steelhead. Pine Creek is a tributary to the Potlatch River, steelhead spawning and juvenile rearing has been documented in this tributary. Approximately 0.17 miles from the mouth is Pine Creek Bridge on Cedar Creek Road. The road and bridge is owned and maintained by Latah County Road District. The bridge has an old and deteriorating concrete pad in the stream channel that has become a migration barrier to juvenile and adult steelhead (Figure 1). The concrete pad has become undermined and water now flows under the pad creating subsurface flow except during high spring flows. Adult steelhead carcasses have been collected above the bridge, trapped in pools unable to manuveur around the concrete pad after high water. Juvenile steelhead cannot migrate below the bridge after high water and become trapped in isolated pool habitat, that can reach lethal temperatures during the summer months.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):
The perched concrete pad has caused the deposition of vast amounts of gravels and cobbles above the bridge, altering the stream characteristics (Figure 2). During high spring flows the concrete pad causes water to pool behind it and the reduced stream velocity causes the sediment load to drop. The accumulation of gravels and cobbles above the bridge has reduced pool habitat and stream connectivity within this area as water goes subsurface.
NRCS has secured WHIP funding to reconstruct the stream channel on Jim Brocke's property. Jim Brocke owns the adjacent property upstream of the bridge site. This site has been impacted by historical ACOE berming activities and further exasperated by the bridge's concrete pad. The area that we propose working on is jointly owned by Jim Brocke, his father and brother. The two projects would rehabilitate approximatly 0.4 miles of stream corridor, but more importantly it allows unrestricted access to and from the main Potlatch River.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):
Juvenile and adult steelhead would have unblocked access to the mainstem Potlatch River regardless of the time of year. It is anticipated that juvenile steelhead outmigration survival would increase as connectivity with the main Potlatch River increased due to juveniles no longer being stranded in Pine Creek, where temperatures reach leathal levels during the summer months.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):
Monitoring and evaluation activities for this project are comprehensive and are included in IDFG's umbrella Potlatch River Basin M&E project funded by PCSRF and NOAA IMW grants. In 2008, juvenile steelhead were PIT-tagged above the Pine Creek Bridge and their outmigration will be monitored. After completion of the project additional juvenile steelhead will be PIT-tagged throughout the drainage and monitored. After completion of the project stranding should be eliminated, therefore, following spawning the stream will be walked to document success.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: 0.4 miles

2.9. Total PCSRF funds requested: $225,025.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $113,129.00

2.11. Anticipated project start date(m/d/yy): 10/1/2008

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 12/1/2011

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:

1. Site Survey 10/1/08 - 11/15/08
2. Bridge Alternative Assessment and Cost Estimates 11/15/08 - 2/1/09
3. Alternative Selection with Latah County Road Commission and Private Landowner 2/1/09 - 4/1/09
4. Complete ACOE Joint Instream Permit, Biological Assessment, DEQ, and NEPA applications 2/1/09 - 6/1/09

(Below there are two timelines, the later timeline would be due to a federal or state application permit meeting an obstacle that requires an unforeseeable delay that pushes the project back to the following years in-stream work window.)

5. Solicit and select construction company 4/1/09 - 6/1/09; or 4/1/10 - 6/1/10
6. Complete construction of bridge and stream channel aggregation removal 7/1/09 - 9/1/09; or 7/1/10 - 9/1/10
7. Complete riparian corridor rehabilitation plan. 10/1/09 - 11/1/09; or 10/1/10 - 11/1/10
8. Implement riparian corridor rehabilitation plan. 4/1/10 - 6/1/10; or 4/1/11 - 6/1/11
9. Complete Final Report 9/1/10; or 9/1/11

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
The Natural Resources Conservation Service (NRCS) has secured WHIP funding to reconstruct the stream channel on Jim Brocke's adjacent upstream property. This property upstream of the bridge site has been impacted by historical ACOE activities and further exasperated by the bridge's concrete pad. Brocke and Sons, Inc, are owners of the property that we propose working on. This property is jointly owned by Jim Brocke, his father and brother, all want to see the property fixed. The bridge is owned by Latah County and they want to see the bridge fixed. The Latah County Highway District is willing to assist in the bridge pad re-construction.

4.2. Assess community support for the project:
There are hundreds of landowners within the Potlatch watershed. IDFG has been granted access for fish surveys across the entire watershed. We have secured landowner agreements for trap placement of four adult weirs and two juvenile screw traps, including access agreements. We have also secured land owner agreements for access to evaluate stream throughout the drainage.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
Clearwater Sub-basin Plan & Potlatch River Watershed Management Plan (2007)

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
Potlatch River Watershed Management Plan (2007) identifies elimination of migration barriers and restore riparian/floodplain areas as a desired restoration strategy.

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☐ Yes ☒ No Please attach group's findings:

5. Permits

5.1. List all government permits known to be needed to complete project:
NOAA Biological Assessment; Joint Application for Permits (ACOE, IDWR, IDL);DEQ Clean Water Act Permitting

5.2. Landowners granting access for project (please attach access agreements):
Brocke & Sons, Inc and South Latah County Highway District

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary		$14,670	BPA			$14,670	$14,670
Fringe		$6,081	BPA			$6,081	$6,081
Travel	$200	$1,500	BPA			$1,500	$1,700
Supplies	$1,000	$35,000	BPA			$35,000	$36,000
Communications/Utilities	$100	$800	BPA			$800	$900
Training		$1,500	BPA			$1,500	$1,500
Lease/Rental	$500	$3,500	BPA			$3,500	$4,000
Land Acquisition							
Capitalized Equipment							
Equipment O&M	$150	$1,500	BPA			$1,500	$1,650
Subcontracts	$190,000	$30,000	BPA			$30,000	$220,000
Other	$100	$2,000	BPA			$2,000	$2,100
Indirect	$32,975	$16,578	BPA			$16,578	$49,553
TOTAL	$225,025	$113,129	BPA			$113,129	$338,154

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SHPR Supplement form* and attach to this form.

7.1. Worksite number 1 of 1

7.2. Worksite name: Brocke - Pine Creek Bridge

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:

1. Site Survey 10/1/08 - 11/15/08
2. Bridge Alternative Assessment 11/15/08 - 12/1/08

   Below are two timelines, the later timeline would be due to a federal or state application permit meeting an obstacle that requires an unforesseable delay that pushes the project back to the following years in-stream work window.
3. Meet with construction companies to go over construction plans to obtain prefered company. 4/1/09 - 6/1/09; or 4/1/10 - 6/1/10
4. Complete construction of bridge, stream channel aggregation removal and reconstruction. 7/1/09 - 9/1/09; or 7/1/10 - 9/1/10
5. Impement riparian corridor rehabilitation plan. 4/1/10 - 6/1/10; or 4/1/11 - 6/1/11

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: 46.631351 (Decimal format)
Longitude: -116.597566 (Decimal format)
- *Or*-
Streamname: Pine Creek
Begin Ft:
End Ft:

LLID:
-Or-
Township:
Range:
Section:
-Or-
3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 10/1/08

7.8. Anticipated work end date at this worksite (m/d/yy): 9/1/11

7.9. List salmonids historically present at this worksite:
Steelhead

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☒ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☒ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☒ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☒ Streambed sediment conditions
- ☒ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable, please answer each highlighted field. If a highlighted field does not apply enter zero or NA.

Screening

- Number of screen(s) installed:
- Flow rate of water diverted (cfs):
- Quantity of water protected by screens (duty):

Instream Habitat

- Number of miles of streambank stabilization treatment (miles to .01 miles): Total = 0.4 miles, PCSRF = 0.2 miles; NRCS = 0.2 miles
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles):

Instream Flow

- Amount of water returned to the stream (cfs):
- Start date of the return flow (m/d/yy):
- End date of the return flow (m/d/yy):
- # of water flow gauges installed:
- Volume of water leased or purchased (cfs):

Fish Passage Improvement

- Number of fish passage blockages removed or improved: 1
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles): 14.23 miles
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to .01 miles):

Riparian Habitat

- Length of riparian stream bank treated (miles to .01 miles): Total = 0.4 miles, PCSRF = 0.2 miles; NRCS = 0.2 miles
- Amount of riparian area treated except for invasive species treatment (acres):
- Amount of riparian area treated for invasive plant species (acres):

Upland Habitat

- Amount of upland area treated (acres):
- Length of road treated (miles to .01 miles):

Wetland

- Amount of wetland treated (acres):
- Amount of artificial wetland created (acres):

- Amount of wetland area of invasive species proposed for treatment and actually treated (acres):

Land acquisition/easements/leases

- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres):
- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles):

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Habitat Protection and Restoration (SHPR)

Application Due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Latah Soil and Water Conservation District

1.2. Contact person (lead person to be contacted regarding project): Kenneth Stinson

1.2.1. Address: 220 East 5th Street, Room 212, Moscow, ID 83843

1.2.2. Telephone: 208.882.4960 x118

1.2.3. Fax: 208.883.4239

1.2.4. Email: kstinson@latahsoil.org

1.3. Technical contact (person who will be project lead/implementer):Trish Heekin

1.3.1. Address: 220 East 5th Street, Room 212, Moscow, ID 83843

1.3.2. Telephone: 208.882.4960 x114

1.3.3. Fax: 208.883.4239

1.3.4. Email: theekin@latahsoil.org

2. Project Overview

2.1. Project title: Potlatch River Restoration IVa

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☒ Clearwater
☐ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Habitat Protection and Restoration**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):
This proposal is for Phase IV(A) (Planning/Design) of the Potlatch River Restoration project to improve habitat for A-run steelhead, a priority population of the Clearwater Major Population Group of the Snake River Distinct Population Segment identified in the NMFS draft recovery plans for Idaho. Proposed actions implement priorities from the Potlatch River Watershed Management Plan which is consistent with the NWPCC fish and wildlife program and the Clearwater Subbasin Management Plan.

Funding for Phase IVa will be used for the following: 1) Retain contract engineering services to design riparian restoration best management practices on private lands within the Coral Creek watershed and 2) undertake the planning and permitting processes associated with the restoration designs.

These restoration designs and associated landowners conservation plans will be used to solicit future Phase IV(B) (Implementation) funding from a variety of sources, including PCSRF funds managed through IOSC.

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):
See attached narrative: Corral Creek Stream Channel Restoration Project: Tee, Colby, and Upper Round Meadows Project Site, Hatley Property

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):
Erosion patterns and riparian degradation in the project site will be reduced through implementation of designed riparian restoration practices. Improved stream and riparian function is expected to reduce erosion, sedimentation, and water temperatures, return flow to a natural channel with riparian connectivity thereby increasing stream and riparian habitat complexity. Restoration of meadow/wetlands is expected to reduce peak storm discharges and improve summer stream flows. The project site affects approximately 7,700 linear feet of stream near the confluence of the West Fork and East Fork of Corral Creek. Fish passage to upper Corral Creek will be enhanced and steelhead spawning, incubation and early rearing (January to May) is expected to improve from the proposed work.

See attached narrative: Corral Creek Stream Channel Restoration Project: Tee, Colby, and Upper Round Meadows Project Site, Hatley Property

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):
Baseline photo points will be established for the Phase IVa component of this project proposal. Baseline water quality parameters have been established from previous monitoring efforts undertaken by the Idaho Departement of Environmental Quality, Idaho Association of Soil Conservation Districts,

Idaho Soil Conservation Commission, Idaho State Department of Agriculture and Latah Soil and Water Conservation District.

When funding is secured for the Phase IV(B) implementation stage of this project proposal, additional monitoring will be proposed and implemented.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: 1.76

2.9. Total PCSRF funds requested: $51,512.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $30,910.00

2.11. Anticipated project start date(m/d/yy): 10/1/2008

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly*) (m/d/yy): 12/31/2009

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:

Undertake field surveys and baseline monitoring	10/01/08 - 7/31/09
Complete engineering designs	7/01/09 - 7/31/09
Draft and complete landowner conservation plans	8/01/09 - 8/31/09
Undertake project permitting	7/01/09 - 10/31/09
Review and solicit Phase IV(B) project implementation funding	6/1/08 - 12/31/09

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
This will be the fourth project coordinated with the Hatley family within the Corral Creek watershed. See sttached letter of support from Craig Hatley.

4.2. Assess community support for the project:
The Latah SWCD is a local non-regulatory subdivision of Idaho State government. It is led by an elected board of supervisors who own land within the county and serve without pay. The Latah SWCD leads, supports, and promotes resource conservation efforts and provides a technical and administrative bridge between landowners and federal, state, tribal, and local agencies. The Potlatch River watershed has been a priority area for conservation implementation since 1994. Potlatch River restoration planning and project implementation has enjoyed landowner and agency support since the original scoping meetings were held to develop the Potlatch River Watershed Management Plan. Landowners overwhelmingly approve access

to their lands for survey work and expressed a strong interest in participating in the implementation projects associated with the Potlatch River Watershed Management Plan. In the spring of 2008, for example, the Latah SWCD undertook riparian plantings on approximately 30 individual sites within the Potlatch River watershed.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):
The Potlatch River has been identified as important for A-run steelhead production in the Clearwater Subbasin Assessment (2003, p.309) and in the Clearwater Inventory (2003, p.52) as a restoration priority watershed. Limiting factors will be addressed through objectives described in the Clearwater Management Plan. These biological and environmental objectives are: Objectives O, P, Q, S, U, AA, BB, CC, DD, EE, FF, JJ, LL.

The individual projects outlined in this proposal will implement "high" priority steelhead habitat restoration strategies identified in the Potlatch River Watershed Management Plan (2007, Chapter 7). A high priority ranking, as defined in the Potlatch River Watershed Management Plan, "implies a priority commitment towards the active solicitation of additional technical and financial assistance for implementation. High priority strategies also reflect the ability and willingness to coordinate the redirection of existing conservation programs towards specified strategies. In addition, a high ranking implies active engagement of individual landowners, private and public, to consider implementation of the defined stategies".

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
Clearwater Subbasin Management Plan: Five high priority factors primarily limit aquatic species habitats in the Clearwater subbasin. These include: instream temperatures, sedimentation, loss or disturbance of riparian habitats, changes in vegetative structure, and alteration of environmental processes. (2003, p.82)

Potlatch River Watershed Management Plan: Primary limiting factors include: high water temperatures, high flashy stream flows, low summer base flows, lack of complexity in stream composition, migration barriers, and sedimentation. (2007, Chapter 7, p.8)

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:
The Technical Advisory Team for the Potlatch River Management Plan identified the priority watersheds using the Quality Habitat Assessment protocol. These findings are part of the Potlatch River Watershed Managemet Plan as cited above. This Round 7 application has proposed a project that have been ranked "high" per the Potlatch River Watershed Management Plan. The development of priorities was undertaken by members of the technical

advisory team who assisted with the develop and ranking of BMPs identified within the Potlatch River Watershed Management Plan. See Appendix F within the Potlatch River Watershed Management Plan.

5. Permits

5.1. List all government permits known to be needed to complete project:
The following is a summary of the permits that may be needed for the implementation of Phase IV(B) of the proposed project. Phase IV(A) of the project will secure as many of the related permits as possible in anticipation of Phase IV(B) implementation funding.

Implementation will be coordinated with the Bonneville Power Administration (BPA) permitting requirements since matching funds for Phase IV(A) will be supplied by BPA and some Phase IV(B) funding from BPA is anticipated as matching funds for Phase IV(B) funding applications. NEPA compliance will umbrella under the Programmatic NEPA process and checklist BPA uses. Cultural resource reviews are requested through BPA and/or the USDA Natural Resources Conservation Service (NRCS). Both entities consults with the State Historical Preservation Office. ESA consultation will formerly be between NOAA Fisheries and BPA, with assistance from the Latah SWCD. Permits will be secured from Army Corps of Engineer (ACOE) CWA 404, Section 10 Rivers and Harbors Act and Idaho Department of Water Resources (IDWR) Stream Alteration Permit (per Section 42-3805 of the Idaho State Code). The Water Quality Certification issued by Idaho Department of Environmental Quality (IDEQ) will be secured as required via ACOE. The Latah County Floodplain Development Permit will be secured. A NRCS wetlandsdetermination for cut/fill projects will be undertaken.

5.2. Landowners granting access for project (please attach access agreements):
See attached correspondence. The landowner has granted access to properties throughout the watershed. The landowner is also an active participant with respect to the Corral Creek railroad fill removal project (#008 06 CW2) and two similar riparian restoration projects currently on-going on his property within Corral Creek (#008 07 CW C3).

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below. Please do not change, add or delete the budget categories. Attach additional budget detail if necessary:

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom,
for what, and
how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary	7752	15574	BPA				23326
Fringe	2713	5451	BPA				8164
Travel		1380	BPA				1380
Supplies		1000	BPA				1000
Communications/Utilities		150	BPA				150
Training							
Lease/Rental							
Land Acquisition							
Capitalized Equipment							
Equipment O&M							
Subcontracts	40000			5000	ISDA - Eng. Support		45000
Other							
Indirect	1047	2355	BPA				3402
TOTAL	51512	25910	BPA	5000	ISDA		82422

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place (e.g., if culverts will be removed from two tributaries – complete all of the following project worksite information for each tributary). Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SHPR Supplement form* and attach to this form.

7.1. Worksite number 1 of 1

7.2. Worksite name: Colby, Tee and Upper Round Meadows

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:

Undertake field surveys and baseline monitoring	10/01/08 - 9/30/09
Complete engineering designs	7/01/09 - 7/31/09
Draft and complete landowner conservation plans	8/01/09 - 8/31/09
Undertake project permitting	7/01/09 - 10/31/09
Review and solicit Phase IV(B) project implementation funding	6/1/09 - 12/31/09

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: (Decimal format)
Longitude: (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-
3rd Field HUC:

4th Field HUC: 17060306
5th Field HUC: 1706030610

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 10/01/08

7.8. Anticipated work end date at this worksite (m/d/yy): 12/31/09

7.9. List salmonids historically present at this worksite:
Historical documents and interviews support the existance of salmon and steelhead in the project area. (Potlatch River Watershed Management Plan, 2007, ch 3, p.1). See attached narrative: Corral Creek Stream Channel Restoration Project: Tee, Colby, and Upper Round Meadows Project Site, Hatley Property.

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☒ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☒ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☒ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☒ Riparian conditions
- ☒ Streambed sediment conditions
- ☒ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☒ Water quantity

Other:

7.12. Complete all of the following that apply to this Salmon Habitat Protection and Restoration project worksite. For each section that you select as applicable,

please answer each highlighted field. If a highlighted field does not apply enter zero or NA.

Screening

- Number of screen(s) installed: NA
- Flow rate of water diverted (cfs): NA
- Quantity of water protected by screens (duty): NA

Instream Habitat

- Number of miles of streambank stabilization treatment (miles to .01 miles): 0.57 miles (Approximately 1,500 feet of stream will be abandoned and the streambanks stabilized. Total affected feet of streamback is 1,500 multiplied by 2 for both sides of stream).
- Length of instream habitat treated, except for bank stabilization (miles to .01 miles): 1.48 (Approximately 7,800 feet of the 'historic' stream system will be rehabilitated.

Instream Flow

- Amount of water returned to the stream (cfs): NA
- Start date of the return flow (m/d/yy): NA
- End date of the return flow (m/d/yy): NA
- # of water flow gauges installed: NA
- Volume of water leased or purchased (cfs): NA

Fish Passage Improvement

- Number of fish passage blockages removed or improved: NA
- Length of stream made accessible by the removal of barriers other than culverts (miles to .01 miles): NA
- Length of stream made accessible for passage of salmon species by the improvement or removal of culverts (miles to .01 miles): NA

Riparian Habitat

- Length of riparian stream bank treated (miles to .01 miles): 2.19 miles (Approximately 5,775 feet of stream lenth will be planted. Total affected stream bank is 5,775 multiplied by 2 for both sides of stream).
- Amount of riparian area treated except for invasive species treatment (acres): 2.7
- Amount of riparian area treated for invasive plant species (acres): 1.0

Upland Habitat

- Amount of upland area treated (acres): NA
- Length of road treated (miles to .01 miles): NA

Wetland

- Amount of wetland treated (acres): NA
- Amount of artificial wetland created (acres): NA

- Amount of wetland area of invasive species proposed for treatment and actually treated (acres): NA

Land acquisition/easements/leases

- Amount of land, wetland or estuarine area protected with acquisition/easement/lease (acres): NA
- Length of stream bank protected through land acquisition/easement/lease (miles to .01 miles): NA

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

Latah Soil and Water Conservation District
Potlatch River Restoration IV(A)
Supplemental Project Narrative

Proposal Presented to Idaho Office of Species Conservation
PCSRF Proposal Application – Round 7

Corral Creek Stream Channel Restoration Project

Tee, Colby, and Upper Round Meadows Project Site, Hatley Property

Location: Corral Creek watershed, part of the Potlatch River watershed, is in the eastern part of Latah County, running north/south between Deary and Bovill, Idaho (Map 1). Tee, Colby, and Upper Round Meadows are on private property, owned by the Hatley family, in the Corral Creek watershed, Latah County, Idaho (T40N R01W Sections 06 and 08; see Map 2). Most of the land west, north, and east of the Hatley property is State or Federal forest land.

Current Condition: The portion of upper Corral Creek on Hatley's property has several thousand feet of good to excellent habitat, but has long reaches that are highly degraded, over-widened, eroding, and bare of shading vegetation. In the early 1900's numerous railroad berms were built, leaving borrow ditches through the meadows of the upper Potlatch watershed. The berms were constructed for main and spur lines, which were used to transport logs during the first wave of timber harvest (Photo 1).

In Tee, Colby, and Upper Round Meadows on the Hatley property, reaches of the West Fork, East Fork, and mainstem Corral Creek were historically contained in a very sinuous, well-vegetated E-type channel (Photos 2, 3). However, after the berms were constructed, the East Fork of Corral Creek moved out of the historic channel and into the borrow ditch of the main north-south railroad berm (Photo 4). As a consequence, the main flow is now in a wide, incised, actively eroding channel that is deficient in riparian vegetation (Photo 5). Trampling by livestock was not the original cause of the damage, but in some of the highly degraded portions of the current channel the negative effects of the trampling are additive. The West Fork of Corral Creek, which was not affected by avulsion events, is still in very good condition, and a series of several dozen beaver dams help to hold water in the channel year round (Photo 6).

Following the fall 2007 removal of a passage barrier (velocity) downstream of this project site, upper Corral Creek became accessible to migrating steelhead during the spring of 2008. IOSC supported the removal of the passage barrier through Potlatch River Watershed Restoration Phase II (Project #008 06 CW C2). Biologists conducted low-water electroshocking in the upper Corral Creek in late summer 2008 and found juvenile steelhead, indicating that adult steelhead successfully migrated into the upper watershed (Photo 7). These juvenile steelhead were found in a pool just below Smith Meadows, which is part of the West Fork of Corral Creek.

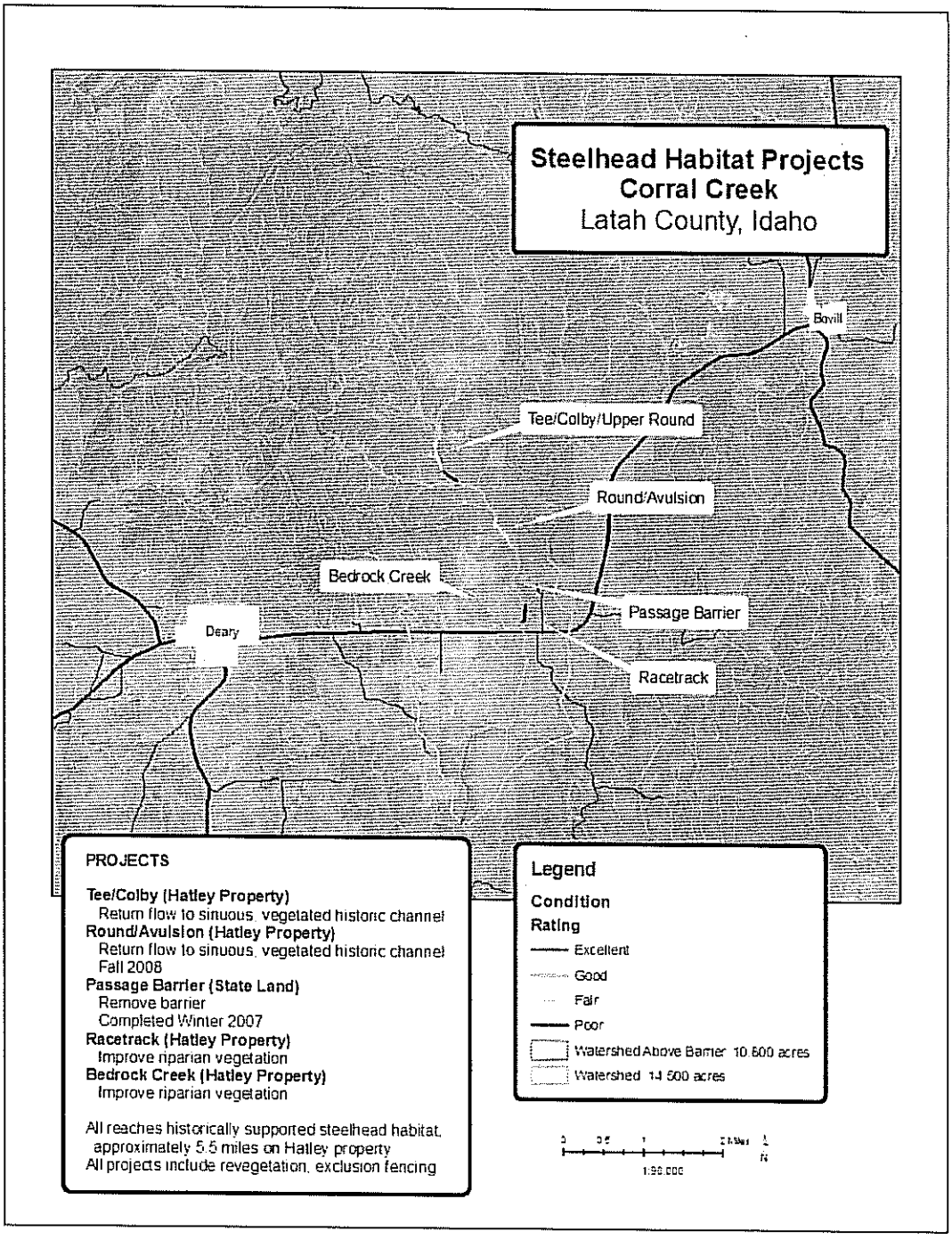
The proposed project site extends about 7,775 feet both upstream and downstream of the confluence of the West Fork and East Fork of Corral Creek on the Hatley property (Map 3).

Objective: The goal of this proposal is to re-direct the majority of the stream flow of the East Fork of Corral Creek into the good to excellent condition historic (pre-railroad) channel. This would be achieved by minor rehabilitation of the historic channel, appropriate placement of channel plugs to divert out of the borrow ditches, installation of rock and log structures where necessary to protect vulnerable banks, addition of large woody debris to slow flows across the floodplain and through the borrow ditches, construction of a bridge along a heavy haul road over the historic channel, replacement of a failing culvert, adding rock to the road surface and into rolling dips, installation of livestock exclusion fencing, and development of alternative water to draw the cattle away from the meadow stream system.

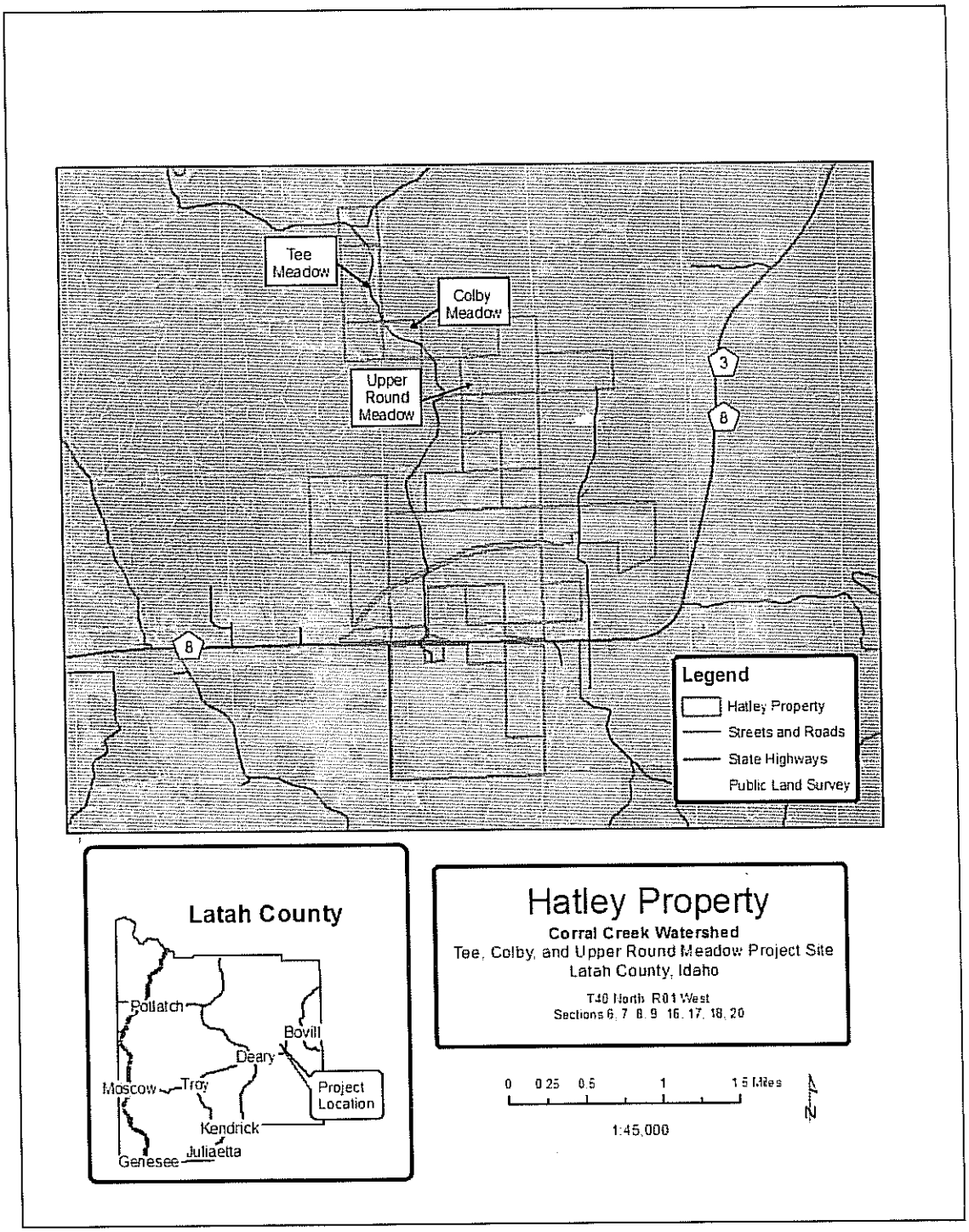
Desired Future Condition: The sinuous, narrow, stable, well-vegetated and well-shaded historic channel will provide much better rearing and migration habitat for the wild steelhead that now have access to the upper drainage. Stream conditions and water quality improvements achieved through this project will slow flows through the system, raise the water table, and increase later season storage capacity. We anticipate the improved channel conditions will also attract beavers, whose dam-building will further improve water storage and retain year-round pool habitat.

Project Proposal: The Latah Soil and Water Conservation District is seeking funding assistance to complete planning, engineering and design phases necessary for the development of a detailed proposal to address the identified resource conservation issues. Initial feasibility investigations by engineers, hydrologists, ecologists, and biologists have already been undertaken and the project concepts are considered feasible and would provide significant habitat and hydrologic benefits.

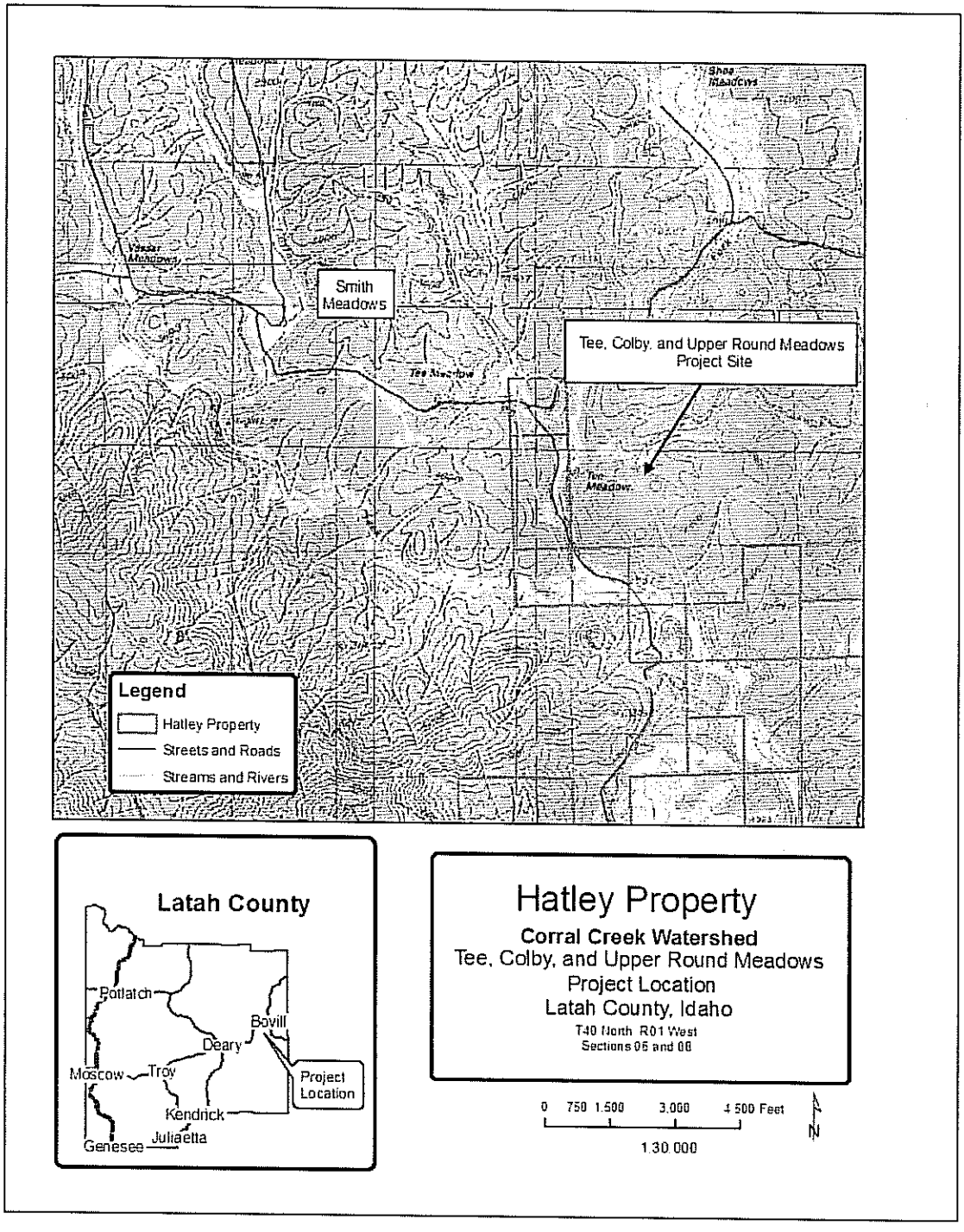
With Phase IV(A) funding, Latah SWCD staff and contract engineers will continue to undertaken site investigations, complete surveys, develop engineered designs to achieve the stream channel restoration objective, and begin the permitting process. Once this phase of the project is completed, Latah SWCD will develop proposals to fund the construction of the stream channel restoration project (Phase IV(B)).



Map 1. Projects to improve steelhead habitat (completed, in progress, and proposed), Corral Creek watershed, Latah County, Idaho. The Passage Barrier project was funded through IOSC Project #008 06 CW C2 and the Round/Avulsion project was funded through IOSC Project #008 07 CW C3.



Map 2. Hatley property, Corral Creek watershed. Approximately 5.5 miles of stream length known to historically support steelhead habitat occur on the Hatley property. This Phase IV(A) proposal concerns the section of the East Fork and mainstem of Corral Creek in the Tee, Colby, and Upper Round Meadows.



Map 3. Project site on Hatley property in relation to Smith Meadows, location of recent electroshocking work by Idaho Department of Fish and Game which found juvenile steelhead.

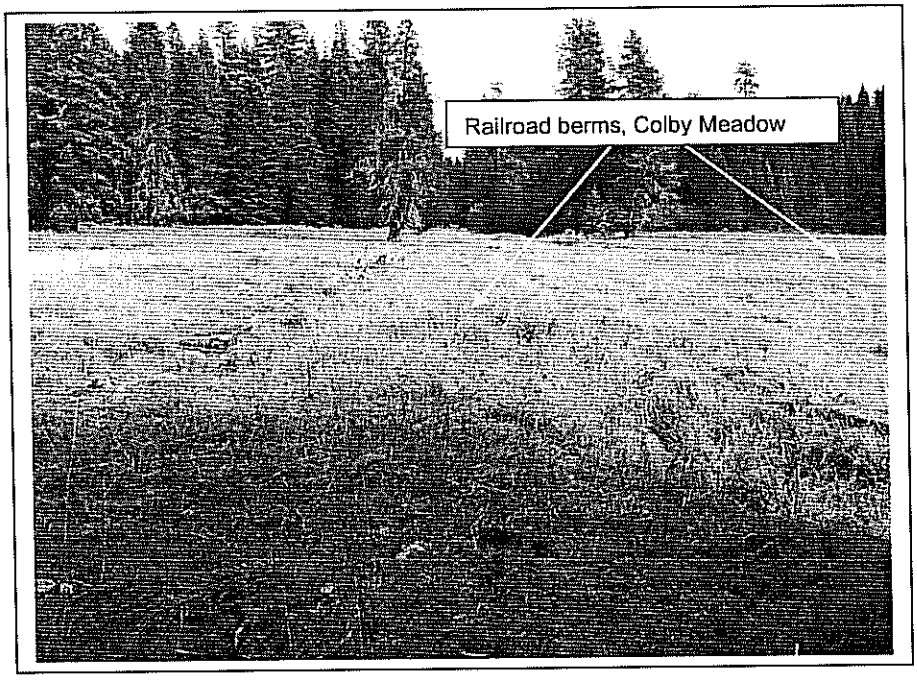


Photo 1. Railroad berms criss-cross the meadows.

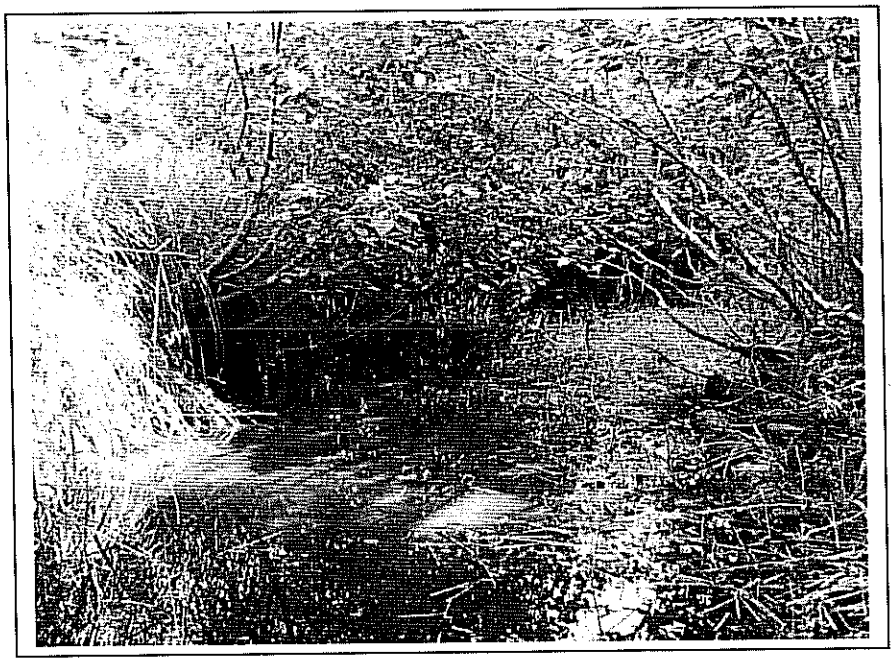


Photo 2. E-type channel, reference reach and pool habitat in undegraded reach of Corral Creek in Upper Round Meadow.

Photo 3. Sinuous, well-vegetated portion of historic channel in Tee Meadow.

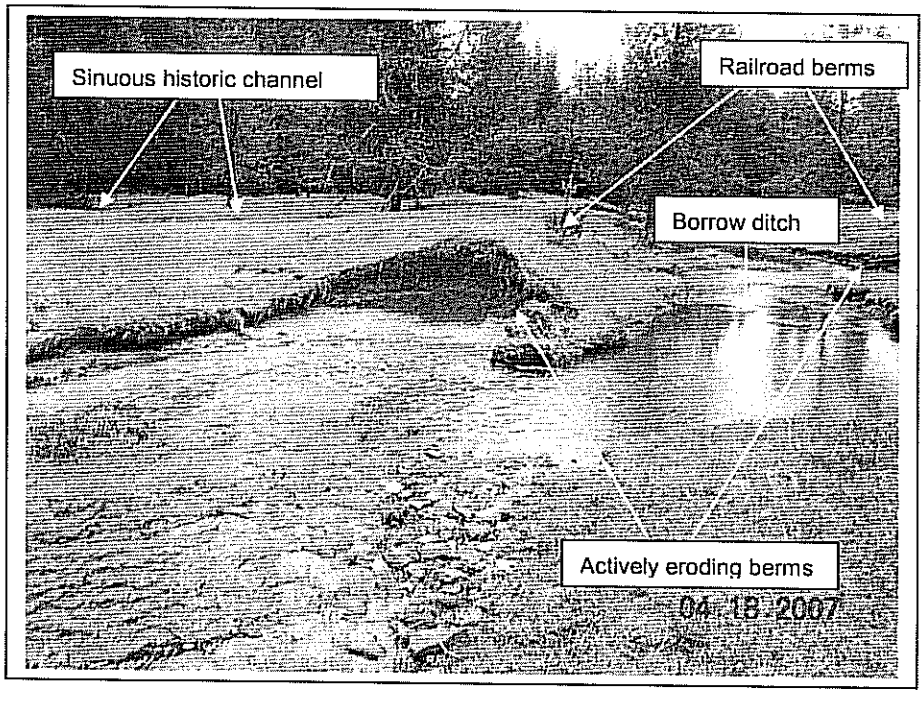


Photo 4. Upper end of Tee Meadow on Hatley property where East Fork of Corral Creek moved into the borrow ditch.

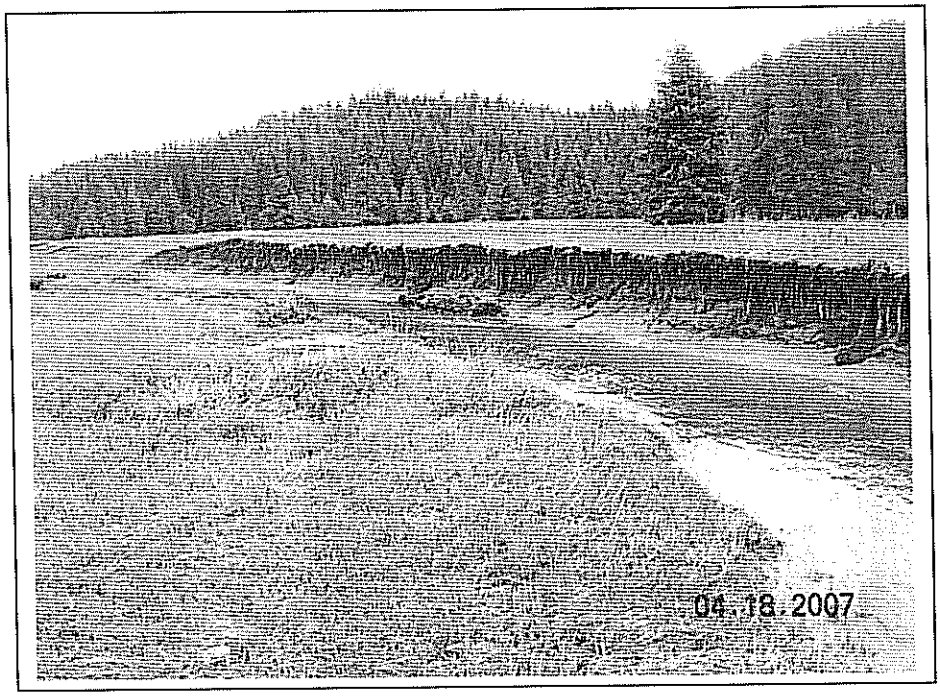


Photo 5. Unlike historic channels, which were sinuous, narrow, and well-vegetated, the borrow ditches are relatively straight, wide, actively eroding, and deficient in riparian vegetation.

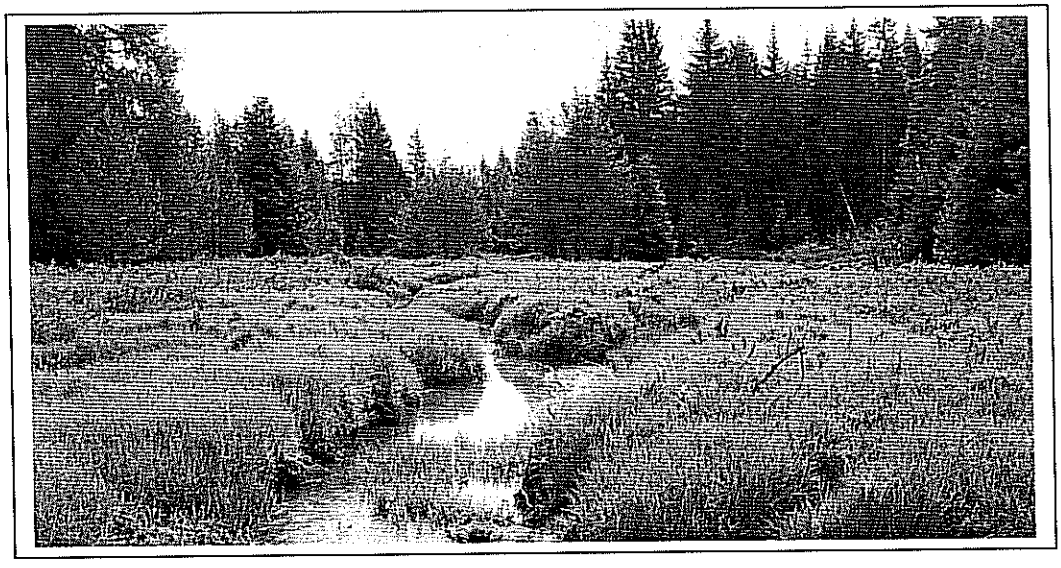


Photo 6. Portion of West Fork of Corral Creek that has not been impacted by the railroad berm construction. Channel is sinuous, narrow, and well vegetated with sedges, water grasses, and has alders along a good portion of the reach.

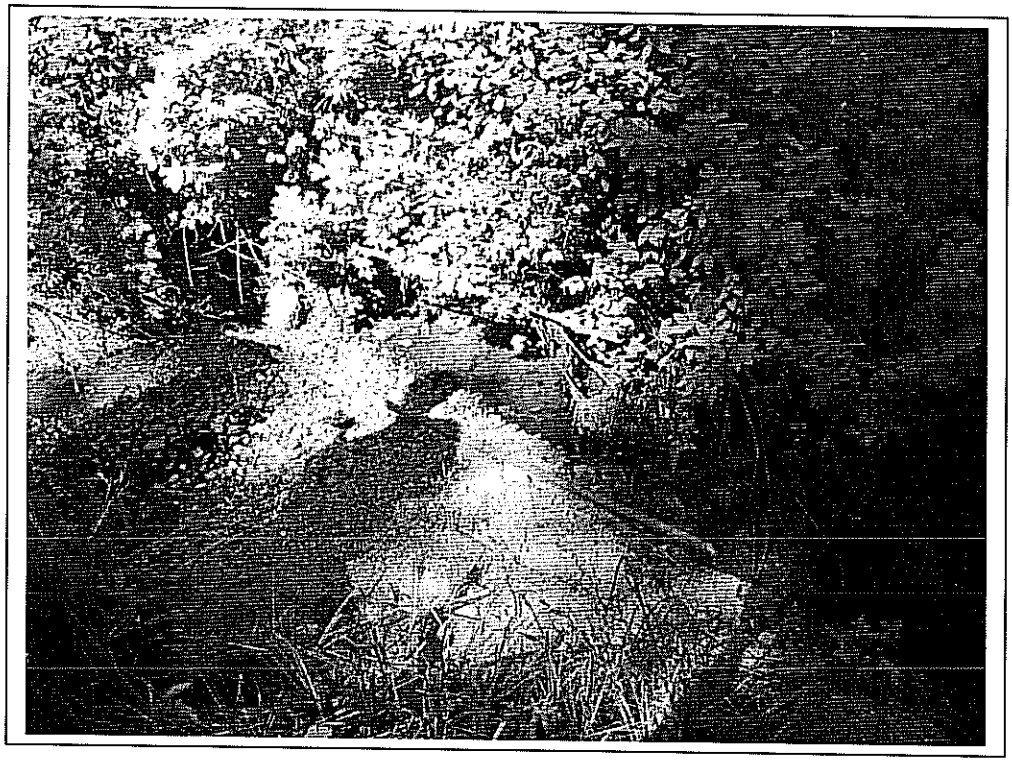
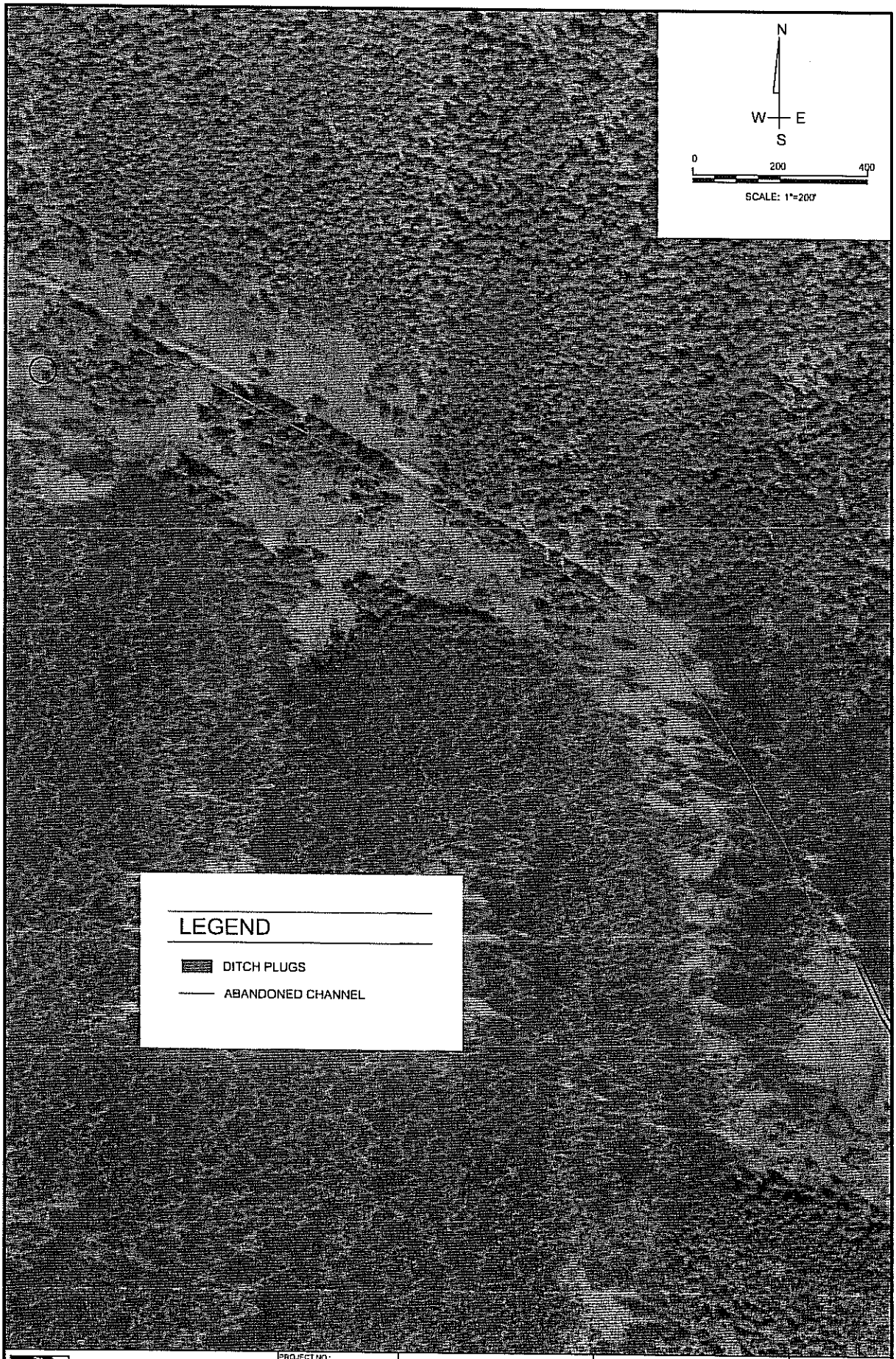


Photo 7. West Fork of Corral Creek downstream of Smith Meadows. The confluence of the West Fork and East Fork, which is a portion of the project site, occurs about 2 miles downstream. See Map 3 for proximity of project site to Smith Meadows.



TerraGraphics
Environmental Engineering, Inc.

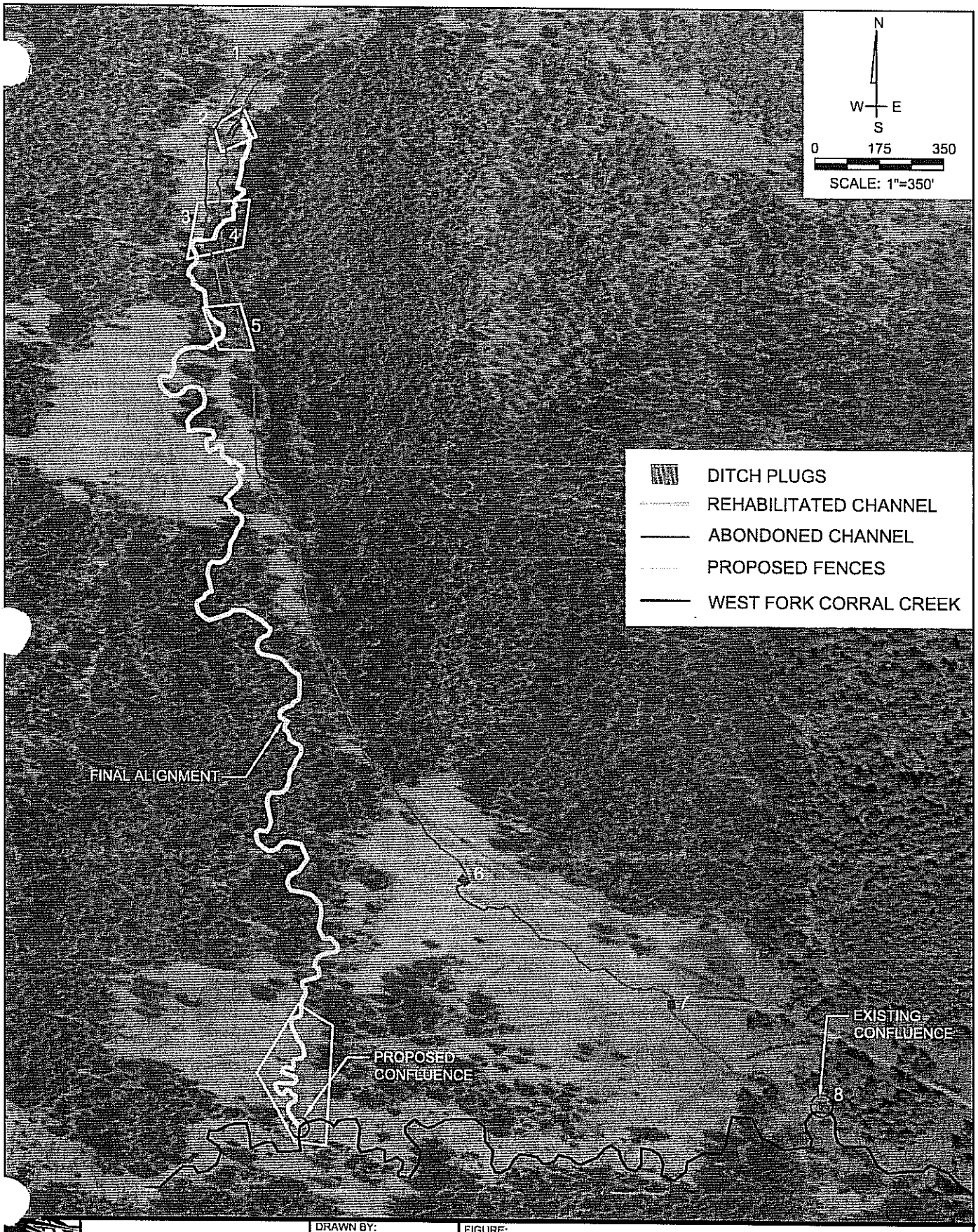
PROJECT NO.:	07201
SCALE:	1"=200'
DRAWN BY:	T. JONES
ENGINEER:	S. FROR

HATLEY PROPERTY

CORRAL CREEK

UPPER ROUND MEADOW

COORDINATE SYSTEM:	ISP, NAD 83, FT
DATE:	08/23/07
SHEET:	4 OF 4



TerraGraphics
Environmental Engineering, Inc.

DRAWN BY:	S. FIROR
PROJECT NO:	07201
DATE:	06/13/08

FIGURE:

CORRAL CREEK
TEE AND COLBY MEADOWS

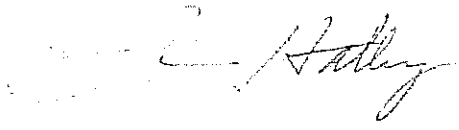
Attention: Ken Stinson District Manager

Dear Ken:

This letter is to confirm my concurrence with the Latah S.W.C.D. to seek funding assistance to use for engineering design and cost estimates for steelhead trout habitat improvement projects on my families property in the Potlatch river watershed.

If you need additional information please do not hesitate to call or e-mail me.

J.Craig Hatley
P.O. Box 209
Deary, ID 83823
E-mail : hatleylogging@moscow.com
PH : 208-877-1562



IDAHO PCSRF PROPOSAL APPLICATION - Round 7
Salmon Research, Monitoring and Evaluation (SRME)

Application due August 31, 2008

Email application form and supporting documents or questions about the application process to Jeff Allen, Office of Species Conservation (OSC), at: jallen@osc.idaho.gov

PROJECT NUMBER (will be assigned by OSC):

1. Contact Information

1.1. Applicant name (name of organization applying for grant): Idaho Department of Fish and Game

1.2. Contact person (lead person to be contacted regarding project): Brett Bowersox

1.2.1. Address: 3316 16th St., Lewiston, ID 83501

1.2.2. Telephone: 208-799-5010

1.2.3. Fax: 208-799-5012

1.2.4. Email: bbowersox@idfg.idaho.gov

1.3. Technical contact (person who will be project lead/implementer):Brett Bowersox

1.3.1. Address: 3316 16th St, Lewiston, ID 83501

1.3.2. Telephone: 208-799-5010

1.3.3. Fax: 208-799-5012

1.3.4. Email: bbowersox@idfg.idaho.gov

2. Project Overview

2.1. Project title: Potlatch River STHD M&E

2.2. Identify the 3rd field Hydrolic Unit Code (HUC) in which project will take place:
☒ Clearwater
☐ Salmon
☐ Little Salmon
Other:

2.3. PCSRF objective: **Salmon Research, Monitoring and Evaluation**

2.4. Project abstract: (Summarize the project – Two to three paragraph limit):
Funding requested in this proposal will continue the umbrella watershed monitoring effort within the Potlatch River drainage. Funding requested in the proposal will also be used to identify future habitat restoration/protection areas. Previous work has been funded through PCSRF grants and NOAA Intensively Monitored Watershed Funds. The framework of this project is providing:
1) insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches
2) a monitoring component for the numerous habitat restoration projects currently on the ground
3) the ability to identify future habitat restoration and easement priority locations
4) comparison of steelhead population dynamics of two lower Clearwater River ecotypes (Upper and Lower Potlatch River)
5) increase knowledge base of regulatory agencies resulting in greater protection of steelhead and steelhead habitat within the Lower Clearwater River MPG

2.5. Project additional details if needed. (Include a brief explanation of current conditions and the reasons the project is needed):
The Potlatch River drainage contains the most significant population of wild steelhead remaining in the lower Clearwater River drainage. Prior to this project recovery criteria data identified by the Interior Columbia River Technical Recovery Team (ICRTRT) was not available. As habitat enhancement activities are conducted within the watershed, it will be important to have adequate baseline and response data to provide a measure of success regarding both biotic and abiotic factors. The proposed work would provide a two tier approach of monitoring both fish populations and habitat health within the entire Potlatch River watershed. In addition, future work identified in this proposal will not only monitor the steelhead population and steelhead habitat but also focus on identifying future habitat resoration and protection prioirty areas.

2.6. Identify the benefits that will be derived from this project (particularly, benefits to ESA listed steelhead or salmon):
The monitoring and evaluation effort within the Potlatch River drainage is focused on the Snake River Basin ESU Steelhead. Information already collected through the project on the lower Potlatch River has redefined "steelhead habitat" for the Potlatch River. Our expanding knowledge of this population has in turn expanded our understanding of the conditions in which Potlatch River steelhead are able to persist. The data has been used by organizations working within the Potlatch drainage to prioritize habitat enhancement activities and locations, assess water right applications, and expand the awareness and protection of steelhead habitat within the Potlatch River drainage.

Data collected for the Potlatch has been used throughout the entire lower Clearwater River drainage. The findings of this project are changing the manner in which steelhead

are perceived in the lower Clearwater River.

2.7. Summarize the monitoring and evaluation activities associated with this project (who, what, where, when and approximate costs):

This project represents the monitoring and evaluation component of the Potlatch River Watershed Restoration Project. This component of the restoration project will be conducted by IDFG, out of the Clearwater Regional Office in Lewiston, Idaho. This monitoring is intended to be long-term, conducted on an annual basis.

Methods

Production and productivity are being measured within the entire Potlatch River drainage using a variety of techniques. Given the complex life history strategies utilized by steelhead we will monitor aspects of juvenile, smolt, and adult population metrics.

The adult steelhead spawning population will continue to be monitored on both the upper and lower Potlatch River. The index streams are Big Bear Creek and the East Fork of the Potlatch River in the lower and upper basins respectively. Upstream migrating adults will be operculum punched when encountered at the weirs and passed upstream. Recaptures of marked as well as unmarked downstream kelts will provide estimates of adult steelhead production for both the upper and lower Potlatch River drainage. Adult weirs will be installed on the study streams beginning in February and run throughout the spawning migration (February - July). All natural adults captured will be passed upstream after being sexed, measured, and a small genetic sample taken.

Productivity has been measured as smolts/spawner, stock-recruit relationships and PIT tag survival data. Additional adult weir counts and juvenile smolt estimates will allow for establishment of stock-recruit relationships for the index streams. Outmigration survival to the mainstem Potlatch River PIT-tag array and Lower Granite Dam and smolt to adult return rates will also be used as an indicator of stock productivity using PIT tag data from the traps and Columbia basin-wide tagging efforts.

Juvenile trapping will continue to be conducted using a rotary screw trap below the confluence of Big Bear and Little Bear Creeks as well as the East Fork Potlatch River spring through fall as water conditions permit. With the unknown migration timing of lower Clearwater River steelhead it is important to gain juvenile outmigration information for the entire year until migration timing is determined. Trapped juvenile steelhead will be measured, given a PIT tag, and a sub-sample will have scales collected for age analysis. Steelhead will then be placed upstream of the trap. Recaptured individuals will provide estimates of trap efficiency and allow for estimation of total outmigrants from each of the index streams. In addition, pit-tag arrays will be installed throughout the system to monitor juvenile outmigration movements and rearing habitat use.

Roving PIT-tagging will be a significant focus of the upcoming field season. With the completion of an instream PIT-tag detection array (Oct 2008) on the mainstem Potlatch River it will be extremely important to deploy PIT tags throughout the basin. Juvenile steelhead will be electrofished or hook and line sampled and PIT tagged during the late

spring and early summer as water temperature permit. Detections of these fish at instream arrays within the Potlatch River and at Lower Granite Dam will enable us to estimate in-stream survival for different tributaries of the Potlatch River.

As soon as water flow and clarity allow, mark-resight snorkeling or mark recapture elecrtofishing will be conducted throughout the Potlatch River drainage to determine juvenile steelhead abundance by reach, tributary and for the basin as a whole. Sites will be stratified throughout the basin with additional sites sampled on index tributaries such as the Big Bear and East Fork drainages. Sightability of marked fish will be used to estimate the steelhead population based upon methods outlined in Copeland (2008). Reach based estimates will be expanded to provide a total population estimate for each tributary. 95 sample sites were surveyed during the 2008 field season.

Adult weir operations, juvenile trapping, and PIT tag interrogations at Lower Granite are providing information on adult and juvenile migration timing and life history. PIT tags will be uploaded to the PTAGIS system daily and dam interrogations queried during the fall of each year to determine migration timing and survival for Potlatch River steelhead. This life history information will allow for more informed management of all steelhead life stages, improved understanding of habitat needs within the rearing streams, the timing of these habitat needs, and improved implementation of habitat projects within Potlatch River tributary streams.

Genetic samples will be taken from all adults returning to the weirs, a sub-sample of juveniles captured at outmigrant traps, and a sub-sample of fish captured from throughout the Potlatch River basin using electrofishing and angling techniques. These samples will be analyzed using microsatellite analysis and compared between tributaries of the Potlatch River and other genetic analysis of wild and hatchery steelhead in the Clearwater and Salmon River subbasins. This information will identify the genetic relationships of lower Clearwater steelhead and determine whether significant hatchery influence has occurred in the Potlatch River drainage.

Habitat survey design will be changed during the 2009-2010 field season to help identify future habitat restoration/protection areas. Field crews will begin thermal refugia surveys throughout the lower Potlatch River basin during the summer of 2009. Crews will hike wetted channel lengths and measure thermal changes within pool and run habitats to identify cold ground water spring inputs. These areas will be identified and prioritized for protection and enhancement. Increased protection of spring habitat will result in more late summer steelhead rearing habitat; a significant limiting factor in the lower Potlatch River. During the spring of 2010 field crews will collect actively migrating adult steelhead from the main Potlatch River below the town of Kendrick, ID. This location was chosen since all tributaries monitored by this project enter the main Potlatch River above Kendrick. Adult fish will be implanted with a radio-transmitter and tracked on a bi-weekly basis. The extent of upstream migration and location of the most upstream detection will be used to determine spawning reaches throughout the Potlatch River. This data will also be used to refine habitat restoration/protection priorities within the Potlatch River basin.

Low Water Habitat Availability Protocol will also be continued in lower Potlatch River tributaries during the 2009-2010 field season. Four randomly selected 500 m reaches will be sampled per tributary to measure wetted length available within each reach. Pool counts and pool characteristics such as maximum depth, modal depth, width and length will also be measured. Surveys conducted in 2007-2008 have already provided a quantitative method for estimating late summer steelhead habitat in the lower Potlatch River. As sampling continues over a number of years we will be able to correlate juvenile densities, survival to outmigration, and overall steelhead production parameters to late summer habitat availability in previous years.

2.8. Length of stream (miles to .01 miles) and/or number of acres to be monitored as part of project: ~ 300 miles

2.9. Total PCSRF funds requested: $201,744.00

2.10. Total non-federal match provided (cash and/or in-kind; note BPA funds are considered a non-federal match for the purposes of the PCSRF program—please see important attached cost share guidelines): $100,872.00

2.11. Anticipated project start date(m/d/yy): 5/1/2009

2.12. Anticipated project end date (*no more than 3 years from the project approval date; however, the timeframe is contingent upon the award or grant year and may need to be adjusted accordingly)* (m/d/yy): 12/31/2011

3. Project Deliverables and Estimated Timeline

3.1. Please attach, or list below, major project deliverables along with the estimated timeline for completion of each deliverable:

All objectives will be addressed in annual progress reports submitted no later than 180 days following the end of annual contract and in final report at the conclusion of the evaluation.

Objective 1.
Describe existing O.Mykiss populations in selected treatment and control streams

Objective 1A.
Establish Big Bear Creek and the East Fork Potlatch River as index streams.

Task 1.A.1: Install and maintain adult fish weirs and adult traps in Big Bear, Little Bear and East Fork Potlatch River.

Task 1.A.2: Trap adult O.mykiss, collect basic biological information, mark fish for re-identification and determination of total escapement from percentage of marked/unmarked kelts collected.

Task 1.A.3: Install and maintain a screw trap in Lower Big Bear Creek and East Fork Potlatch River to collect migratory juvenile steelhead emigrating from Big Bear and Little Bear Creeks and the East Fork Potlatch River. Calculate trap efficiency to generate estimate of total outmigration.

Task 1.A.4: From Tasks 2.A.1 2.A.2 and 2.A.3 a recruit/spawner relationship will be established and will serve as a measure of habitat productivity in Big Bear Creek and the East Fork Potlatch River.

Objective 1B.
Estimate production in selected tributaries, including the Big Bear Creek and the East Fork Potlatch River systems, by determining age specific survival rates of juvenile steelhead using mark and recapture techniques and ultimately PIT tag interrogation rates at Lower Granite Dam. Tributary specific survival estimates will be directly compared to survival estimates determined in the spawner/recruit relationship developed in the Big Bear Creek and the East Fork Potlatch River systems (index). Tributary specific survival rates will be used as a measure of tributary habitat productivity.

Task 1.B.1: Capture and PIT tag juvenile O. mykiss using standard electrofishing and angling techniques in selected tributaries.

Task 1.B.2: Estimate the age specific population of O. mykiss in select tributaries using stratified random site selection and mark-resight snorkel estimates.

Task 1.B.3: Determine age specific survival rates to time of emigration from selected tributaries with remote PIT tag detection systems.

Task 1.B.4: Determine age specific survival rates to time of detection as actively migrating smolts interrogated at Lower Granite Dam.

Objective 2:
Describe existing habitat conditions of streams in the Potlatch River basin.

Objective 2A.
Select a statistically robust set of habitat monitoring sites throughout selected tributaries in the project area.

Task 2A.1: Using a stratified, random design select habitat monitoring sites distributed throughout the range of O. mykiss in selected tributaries.

Task 2A.2: Identify habitat restoration/protection priority areas for habitat implementers within the Potlatch River Basin

Objective 2B.
Conduct surveys to identify restoration projects within the Potlatch River Basin

Task 2B.1: Identify steelhead spawning reaches

Task 2B.2: Identify cold groundwater input location throughout the lower Potlatch River Basin

Task 2B.3: Relay findings to habitat restoration/protection implementers within the basin through annual report

Objective 2C.
Collect and summarize flow and temperature data from treatment and control streams.

Task 2C.1: Coordinate with Latah SWCD to collect stream flow and temperature measurements.

Task 2C.2: Install staff gauges on index streams where needed and collect calibration flow measurements.

Task 2C.3: Install additional temperature monitoring equipment where needed.

Task 2C.4: Estimate low water salmonid habitat within the lower Potlatch River tributaries

Objective 2D.(future)
Document habitat changes resulting from conservation measures by comparing relative change in habitat parameters from baseline conditions in control and treatment streams.

Task 2D.1: Data collected in Objective 1B and 1C will be compared to future replicate surveys.

Objective 3.
Complete technical transfer of findings.

Task 3.1: Complete annual progress reports.
Task 3.2: Provide oral presentation annual findings to various interest groups
Task 3.3: Complete annual summary reports.

4. Project Support and Relationship to Watershed/Sub-basin Planning

4.1. Describe landowner support for the project:
There are hundreds of landowners within the Potlatch watershed. IDFG has been granted access for fish surveys across the entire watershed. We have secured landowner agreements for trap placement of four adult weirs and two juvenile trap, including access agreements. We have also secured land owner agreements for access to evaluation stream reaches for population surveys and establishing habitat monitoring sites. This M&E project follows on the coat-tails of wide spread landowner support for implementation of watershed restoration using PCSRF.

4.2. Assess community support for the project:

The Potlatch River watershed has been a priority area for conservation implementation since 1994. Though lacking funding for an implementation program the Potlatch project has enjoyed landowner and agency support since the original scoping meetings were held. Landowners overwhelmingly approve access to their lands for survey work and indicate high interest in participating in the implementation phase of the project. We also have support from Kendrick High School, who are implementing the concepts of the project into academic lesson plans.

4.3. Does the project address prioritized objectives and/or strategies identified in the relevant watershed and/or Northwest Power and Conservation Council approved sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s):

This project relates to many other efforts in the Clearwater River Subbasin. Specifically Section 4.2.2, Problem 2, Objective B, Strategies 3, 4, and 7 of the Clearwater Subbasin Management Plan. Strategy 3 states to "establish a set of index streams stratified by PMUs for monitoring. These streams should be representative of the area in which they occur and should not be confused with reference streams." We propose to establish East Fork Potlatch River and Big Bear Creek as index streams for wild steelhead production in the Clearwater Basin. It is documented that the Potlatch River basin contains wild steelhead, and that they are genetically distinct from Dworshak B-run stock. Strategy 4 states to "identify and develop indices to evaluate biological response(s) to habitat improvement projects, using appropriate fish production models or empirical data to link the developed index to fish production potential." Strategy 7 states to "monitor and evaluate habitat improvement projects. Use indices developed in Strategy 4 to monitor effectiveness of habitat improvement efforts to provide biological benefits. Integrate results and other new information into the process by adapting management to reflect new information." Through this project IDFG is identifying and developing indices to evaluate the biological responses to current and ongoing habitat improvement projects in the Potlatch River basin conducted by Latah SWCD, NRCS, ISCC, IDL, and private agriculture and timber landowners. Additionally, IDFG is conducting monitoring and evaluation efforts related to habitat improvement projects within the drainage.

This project also relates to the Clearwater Subbasin Management Plan, Section 4.2.2, Problem 3, Objective D, which states to "utilize a mix of hatchery and natural production strategies for native, localized, and reintroduced populations to meet subbasin goals..". This basin contains wild steelhead that have been confirmed to be genetically distinct from Dworshak B-run steelhead. For these reasons we propose to establish the Potlatch River basin as the non-supplemented control stream for wild steelhead production in the lower Clearwater River. The requirements for this designation would be to remove the Potlatch River basin from any future steelhead supplementation efforts.

This project also addresses research direction identified in the Clearwater Subbasin Management Plan. Specifically addressed are Section 4.3 Research, Monitoring, and Evaluation Plan Section 4.3.1 Aquatics IV. Habitat 2b and Section 4.3.1 Aquatics I.2. Habitat 2b states to "Develop/expand index areas. Conduct Tier 2 sampling at each index site annually." The specific goals are defining baseline population growth rates and identifying associations between population trends over time related to habitat improvement work within the drainage. Weirs and outmigrant traps are being used to

measure stock-recruitment relationships in index streams as a measure of habitat and stock productivity. Aquatics 1.2. states "Determine migration characteristics and timing of smolt outmigration from the subbasin and assess hatchery: wild ratio." This project is providing information regarding migration characteristics and timing of smolt outmigration for wild steelhead in the lower Clearwater River. Information gathered is evaluating life-stage survival and biological characteristics associated with initial baseline conditions and trend analysis related to habitat improvements within the drainage.

This project also addresses data needs identified by the Interior Columbia Basin Technical Recovery Team (TRT) in the Independent Populations of Chinook, Steelhead, and Sockeye for Listed Evolutionary Significant Units Within the Interior Columbia River Domain (Draft July 2003). The TRT identified the need for additional fine scale genetic information, life history knowledge, and local area run size and population information. This project addresses these three information gaps for lower Clearwater River wild steelhead in the Potlatch River Basin.

4.4. Does the project address limiting factors identified in the relevant watershed and/or sub-basin plan(s)? ☒ Yes ☐ No If yes, identify relevant plan(s) and the limiting factors within those plans:
This project provides necessary M&E for an implementation project designed to address limiting factors identified by the Potlatch River Basin Restoration working group and Clearwater Sub-Basin Plan

4.5. Has this project been reviewed, and if applicable ranked against other potential PCSRF projects, by a local technical team, scientific advisory group, or the sub-basin working group? ☒ Yes ☐ No Please attach group's findings:
This project was reviewed against PCSRF projects during FY2004, 2005, 2006 and 2007 application process and was awarded funding by the Board. This project also has the support of the Potlatch River Basin Restoration interagency working group.

5. Permits

5.1. List all government permits known to be needed to complete project:
Idaho Department of Water Resources -- 404d Permit, related to pit-tag array installation (obtained)

NOAA Fisheries -- Section 7 take permit (obtained)

5.2. Landowners granting access for project (please attach access agreements):
N/A

6. Budget

6.1. Provide a summary of project costs including both PCSRF and non-Federal cash and/or in-kind match in the table below (attach additional budget detail if necessary):

6.2. The PCSRF Program does not allow for subcontracting with Federal agencies without a special exemption. These exemptions are issued sparingly and are discouraged. Do you plan on subcontracting with a federal agency?

☐ Yes If yes, with whom, for what, and how much?

☒ No

Category	*PCSRF Funds*	*Non-Federal $Cash Match**	*Identify Non-Federal Cash Match Source*	*Non Federal In-kind Match**	*Identify Non-Federal In-kind Match Source*	*Total Non Federal Match*	*Total*
Salary	101565	47526	BPA	2250	Volunteer Salary	49776	151341
Fringe	40626	23850	BPA	810	Benefits	24660	65286
Travel	1500	674	BPA			674	2174
Supplies	15800	15125	BPA			15125	30925
Communications/Utilities	840						840
Training	1750	1040	BPA			1040	2790
Lease/Rental	8000	9597	BPA			9597	17597
Land Acquisition							
Capitalized Equipment							
Equipment O&M	1000						1000
Subcontracts	1000						1000
Other	100						100
Indirect	29563						29563
TOTAL	201744	97812		3060		100872	302616

* Total 33% non-Federal cash match is required. BPA funds are considered non-Federal match for purposes of Idaho's PCSRF.

7. Project Worksite Information

Complete the following information for each on-the-ground worksite where project activities will take place. Some projects may have only one worksite, while others will have many. For each additional worksite, complete a *PCSRF Round 6 SRME Supplement form* and attach to this form.

7.1. Worksite number: 1 of

7.2. Worksite name:

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite:

7.4. County where worksite is located:

7.5. Land ownership at worksite (identify percentage):
Private:
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files):
☐ Yes
☐ No

Provide one the following:
Latitude: (Decimal format)
Longitude: (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-
3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy):

7.8. Anticipated work end date at this worksite (m/d/yy):

7.9. List salmonids historically present at this worksite:

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☐ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☐ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite.

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks: ☐ Yes ☐ No
- Number of organizations cooperating on the research, monitoring and evaluation project:
- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:

- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles):

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g., progress reports, monitoring reports or final reports associated with research):

Cost Share Guidelines

The non-Federal match, whether cash or in-kind, is expected to be paid out at the same general rate as the PCSRF share. Exceptions to this requirement are discouraged, but may in select circumstances be granted by OSC (pending approval from the NOAA Grant Officer), based on sufficient documentation demonstrating previously determined plans for, or later commitment of, cash or in-kind contributions.

In all cases, the subgrantee must meet their cost share commitment over the life of the award (three years or less). The same requirements that apply to the PCSRF award funds (e.g., adequacy of personnel records, inclusion of only allowable costs as defined in the applicable OMB circulars, and adequate documentation of costs), apply to the non-Federal match.

Non-Federal match used to meet Idaho's PCSRF requirements may not be included as contribution for any other federally assisted project or program.

Supplemental Worksite Information Form – Round 7
Salmon Research, Monitoring and Evaluation (SRME)
Due August31, 2008

Complete and attach as many copies of this supplement, as necessary, to your *Idaho PCSRF Round 7 Proposal Application* to document all individual worksites addressed through your project proposal.

Project title: Potlatch Steelhead M&E

7. Project Worksite Information

7.1. Worksite number: 1 of 5

7.2. Worksite name: Big Bear Creek Adult Steelhead Weir

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite):
Adult steelhead trapping during spring spawning migration

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: N46.63243' (Decimal format)
Longitude: W116.6556' (Decimal format)
- Or-
Streamname:
Begin Ft:
End Ft:
LLID:
-Or-
Township:
Range:
Section:
-Or-

3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes: Weir located ~150 m downstrean of Little Bear Ridge Rd. bridge crossing

7.7. Anticipated work start date at this worksite (m/d/yy): 2-15-09

7.8. Anticipated work end date at this worksite (m/d/yy): 6-15-09

7.9. List salmonids historically present at this worksite:
Steelhead/rainbow trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite:

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks:
  ☒ Yes ☐ No

- Number of organizations cooperating on the research, monitoring and evaluation project:
  Idaho Department of Fish and Game

- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:
- This project is designed to provide insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches. From a basin wide perspective, findings from previous years of monitoring on the Potlatch River have already provided valuable insight for salmon and watershed programs within the basin. Data from this project has been used to direct habitat restoration efforts towards drainages with the most steelhead production potential. Furthermore, finding associated with this project have greatly expanded our understanding of steelhead life history and steelhead habitat within the Potlatch River. Areas that previously would have been considered unimportant habitat reaches are now being protected. The means by which in-stream work, water right applications, and steelhead bearing stream reaches are located and evaluated have changed since the inception of this work.
  On a finer scale, this study will be able to detect changes in steelhead densities, survival, and productivity within individual reaches and tributaries within the Potlatch River. This provides an important monitoring component to the numerous habitat restoration projects currently on the ground within the drainage. The fact that infrastructure is already in place will allow the monitoring effort in the Potlatch River to be adaptive to projects as they come along.

- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles): 21.7

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g.,

progress reports, monitoring reports or final reports associated with research):

- 4 - Quaterly Reports
- 1 - Annual Report
  1 - Final Report

Supplemental Worksite Information Form – Round 7
Salmon Research, Monitoring and Evaluation (SRME)
Due August31, 2008

Complete and attach as many copies of this supplement, as necessary, to your *Idaho PCSRF Round 7 Proposal Application* to document all individual worksites addressed through your project proposal.

Project title: Potlatch River STHD M&E

7. Project Worksite Information

7.1. Worksite number: 2 of 5

7.2. Worksite name: Little Bear Creek Adult Steelhead Weir

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite):
Adult steelhead trapping during spring spawning migration

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private: 100
State:
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: N46.63608' (Decimal format)
Longitude: W-116.6784' (Decimal format)
- Or-
Streamname:
Begin Ft:
End Ft:
LLID:
-Or-
Township:
Range:
Section:
-Or-

3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 2-15-09

7.8. Anticipated work end date at this worksite (m/d/yy): 6-15-09

7.9. List salmonids historically present at this worksite:
Steelhead/rainbow trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite:

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks:
  ☒ Yes ☐ No

- Number of organizations cooperating on the research, monitoring and evaluation project:
  Idaho Department of Fish and Game

- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:
- This project is designed to provide insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches. From a basin wide perspective, findings from previous years of monitoring on the Potlatch River have already provided valuable insight for salmon and watershed programs within the basin. Data from this project has been used to direct habitat restoration efforts towards drainages with the most steelhead production potential. Furthermore, finding associated with this project have greatly expanded our understanding of steelhead life history and steelhead habitat within the Potlatch River. Areas that previously would have been considered unimportant habitat reaches are now being protected. The means by which in-stream work, water right applications, and steelhead bearing stream reaches are located and evaluated have changed since the inception of this work.
  On a finer scale, this study will be able to detect changes in steelhead densities, survival, and productivity within individual reaches and tributaries within the Potlatch River. This provides an important monitoring component to the numerous habitat restoration projects currently on the ground within the drainage. The fact that infrastructure is already in place will allow the monitoring effort in the Potlatch River to be adaptive to projects as they come along.

- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles): 28.8

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g., progress reports, monitoring reports or final reports associated with research):
- 4 - Quarterly Reports
- 1 - Annual Report

1 - Final Report

Supplemental Worksite Information Form – Round 7
Salmon Research, Monitoring and Evaluation (SRME)
Due August31, 2008

Complete and attach as many copies of this supplement, as necessary, to your *Idaho PCSRF Round 7 Proposal Application* to document all individual worksites addressed through your project proposal.

Project title: Potlatch River STHD M&E

7. Project Worksite Information

7.1. Worksite number: 3 of 5

7.2. Worksite name: Big Bear Creek Juvenile Screw Trap

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite):
Trapping and tagging of outmigrating juvenile steelhead smolts

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private:
State: 100
Federal:

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: N46.620127 (Decimal format)
Longitude: W-116.647443 (Decimal format)
- Or-
Streamname:
Begin Ft:
End Ft:
LLID:
-Or-
Township:
Range:
Section:
-Or-

3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 2-1-09

7.8. Anticipated work end date at this worksite (m/d/yy): 12-1-09

7.9. List salmonids historically present at this worksite:
Steelhead/rainbow trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite:

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks:
  ☒ Yes ☐ No

- Number of organizations cooperating on the research, monitoring and evaluation project:
  Idaho Department of Fish and Game

- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:
- This project is designed to provide insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches. From a basin wide perspective, findings from previous years of monitoring on the Potlatch River have already provided valuable insight for salmon and watershed programs within the basin. Data from this project has been used to direct habitat restoration efforts towards drainages with the most steelhead production potential. Furthermore, finding associated with this project have greatly expanded our understanding of steelhead life history and steelhead habitat within the Potlatch River. Areas that previously would have been considered unimportant habitat reaches are now being protected. The means by which in-stream work, water right applications, and steelhead bearing stream reaches are located and evaluated have changed since the inception of this work.
  On a finer scale, this study will be able to detect changes in steelhead densities, survival, and productivity within individual reaches and tributaries within the Potlatch River. This provides an important monitoring component to the numerous habitat restoration projects currently on the ground within the drainage. The fact that infrastructure is already in place will allow the monitoring effort in the Potlatch River to be adaptive to projects as they come along.

- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles): 35.5

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g., progress reports, monitoring reports or final reports associated with research):
- 4 - Quarterly Reports
- 1 - Annual Report

1 - Final Report

Supplemental Worksite Information Form – Round 7
Salmon Research, Monitoring and Evaluation (SRME)
Due August31, 2008

Complete and attach as many copies of this supplement, as necessary, to your *Idaho PCSRF Round 7 Proposal Application* to document all individual worksites addressed through your project proposal.

Project title: Potlatch River STHD M&E

7. Project Worksite Information

7.1. Worksite number: 4 of 5

7.2. Worksite name: East Fork Potlatch River Adult Steelhead Weir

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite):
Adult steelhead trapping during spring spawning migration

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private:
State:
Federal: 100

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: N46.798462 (Decimal format)
Longitude: W-116.419369 (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-

3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 3-1-09

7.8. Anticipated work end date at this worksite (m/d/yy): 7-1-09

7.9. List salmonids historically present at this worksite:
Steelhead/rainbow trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite:

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks:
  ☒ Yes ☐ No

- Number of organizations cooperating on the research, monitoring and evaluation project:
  Idaho Department of Fish and Game

- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:
- This project is designed to provide insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches. From a basin wide perspective, findings from previous years of monitoring on the Potlatch River have already provided valuable insight for salmon and watershed programs within the basin. Data from this project has been used to direct habitat restoration efforts towards drainages with the most steelhead production potential. Furthermore, finding associated with this project have greatly expanded our understanding of steelhead life history and steelhead habitat within the Potlatch River. Areas that previously would have been considered unimportant habitat reaches are now being protected. The means by which in-stream work, water right applications, and steelhead bearing stream reaches are located and evaluated have changed since the inception of this work.
  On a finer scale, this study will be able to detect changes in steelhead densities, survival, and productivity within individual reaches and tributaries within the Potlatch River. This provides an important monitoring component to the numerous habitat restoration projects currently on the ground within the drainage. The fact that infrastructure is already in place will allow the monitoring effort in the Potlatch River to be adaptive to projects as they come along.

- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles): 44.1

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g., progress reports, monitoring reports or final reports associated with research):
- 4 - Quarterly Reports
- 1- Annual Report

1- Final Report

Supplemental Worksite Information Form – Round 7
Salmon Research, Monitoring and Evaluation (SRME)
Due August31, 2008

Complete and attach as many copies of this supplement, as necessary, to your *Idaho PCSRF Round 7 Proposal Application* to document all individual worksites addressed through your project proposal.

Project title: Potlatch River STHD M&E

7. Project Worksite Information

7.1. Worksite number: 5 of 5

7.2. Worksite name: East Fork Potlatch River Screw Trap

7.3. Briefly describe, in sequential order, the project activities that will take place at this worksite):
Trapping and tagging of outmigrating juvenile steelhead smolts

7.4. County where worksite is located: Latah

7.5. Land ownership at worksite (identify percentage):
Private:
State:
Federal: 100

7.6. Worksite location details:

Is GIS data available for the worksite (e.g., ARC GIS data files)?
☒ Yes
☐ No

Provide one the following:
Latitude: N46.798641 (Decimal format)
Longitude: W-116.420318 (Decimal format)
- *Or*-
Streamname:
Begin Ft:
End Ft:
LLID:
-*Or*-
Township:
Range:
Section:
-*Or*-

3rd Field HUC:
4th Field HUC:
5th Field HUC:

Other location notes:

7.7. Anticipated work start date at this worksite (m/d/yy): 3-1-09

7.8. Anticipated work end date at this worksite (m/d/yy): 12-1-09

7.9. List salmonids historically present at this worksite:
Steelhead/rainbow trout

7.10. ESUs targeted by actions to be completed at this worksite (select all that apply):

- ☐ Snake River Spring/Summer-run ESU Chinook Salmon
- ☐ Snake River Fall-run ESU Chinook Salmon
- ☒ Snake River Basin ESU Steelhead
- ☐ Snake River ESU Sockeye Salmon

7.11. Limiting factors addressed at this worksite through project actions (check all that apply):

- ☒ Biological processes
- ☐ Channel conditions
- ☐ Estuarine and near-shore habitat
- ☐ Exotic species
- ☐ Fire regime
- ☐ Floodplain conditions
- ☐ Irrigation diversions – screens
- ☐ Lake Habitat
- ☐ Loss of access to spawning and rearing habitat
- ☐ Predator/competitor interactions
- ☐ Riparian conditions
- ☐ Streambed sediment conditions
- ☐ Temperature
- ☐ Trophic interactions
- ☐ Water quality
- ☐ Water quality (toxics)
- ☐ Water quantity

Other:

7.12. Please complete the following for this Salmon Research, Monitoring and Evaluation worksite:

- Is the project directly related to key salmon management questions regarding salmon recovery and/or sustainability of healthy salmon stocks:
  ☒ Yes ☐ No

- Number of organizations cooperating on the research, monitoring and evaluation project:
  Idaho Department of Fish and Game

- Name of all cooperating organizations:

- Describe the research, monitoring and evaluation findings utilized in adaptive changes to salmon and watershed programs and policies:
- This project is designed to provide insight into Potlatch River steelhead production and productivity on a variety of scales, ranging from basin wide to individual stream reaches. From a basin wide perspective, findings from previous years of monitoring on the Potlatch River have already provided valuable insight for salmon and watershed programs within the basin. Data from this project has been used to direct habitat restoration efforts towards drainages with the most steelhead production potential. Furthermore, finding associated with this project have greatly expanded our understanding of steelhead life history and steelhead habitat within the Potlatch River. Areas that previously would have been considered unimportant habitat reaches are now being protected. The means by which in-stream work, water right applications, and steelhead bearing stream reaches are located and evaluated have changed since the inception of this work.
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- Stream length assessed/monitoring for habitat condition, water quality, salmonid abundance, and productivity in accordance with research, monitoring and evaluation or watershed monitoring strategy (miles to .01 miles): 44.1

- Identify the number and type of reports that will be prepared by the project on key management or restoration data, information, and needs (e.g., progress reports, monitoring reports or final reports associated with research):
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- 1 - Annual Report

1 - Final Report